



## TABLE OF CONTENTS

## Speaker Section

Speaker system	3 way system
Speaker units	Woofer: 14 cm dia., cone type
	Tweeter: 5 cm dia., cone type
	Super tweeter: 2cm dia., dome type
Enclosure type	Bass reflex
Frequency range	60 Hz – 20 kHz
Sensitivity	88 dB/W/m
Impedance	6 ohms
Dimensions	Approx. 185 x 285 x 225 mm (w/h/d) (7 3/8 x 11 1/4 x 8 7/8 inches)
Weight	Approx. 3.2 kg (7 lb 1 oz) net per speaker

## General

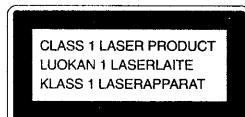
Destination	Power requirements	Power consumption
AEP	220-230V AC, 50/60Hz	60 watts
UK	240V AC, 50Hz	120 watts
Other countries	110-120V or 220-240V AC adjustable, 50/60	60watts
US	120V AC, 60Hz	60 watts
Canadian	120V AC, 60Hz	80 watts
East European, Germany, Italian	220-230V AC, 50Hz	60 watts

Dimensions	Approx. 615 x 285 x 255 mm (w/h/d) (24 1/4 x 11 1/4 x 10 1/8 inches) incl. projecting parts and controls
Weight	Approx. 12.2 kg (26 lb 14 oz)
Accessories supplied	AM loop antenna (1) Remote commander (1) Sony SUM-3 (NS) batteries (2) FM lead antenna (1) (HCD-H500) Speaker cords (2) (HCD-H500: except UK)

Design and specifications subject to change without notice.

## Note

This appliance conforms with EEC Directive 87/308/EEC regarding interference suppression.



This appliance is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT label is located on the rear exterior.

## SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK OR DOTTED LINE WITH MARK ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

<u>Section</u>	<u>Title</u>	<u>Page</u>
1. SERVICING NOTES	.....	3
2. GENERAL	.....	6
3. DISASSEMBLY	.....	
3-1. Case Assy	.....	19
3-2. Power Assy	.....	19
3-3. Main Board	.....	19
3-4. CD Block	.....	20
3-5. Cassette Deck Block	.....	20
3-6. VR, Display, Jack, SW Boards	.....	20
4. MECHANICAL ADJUSTMENTS	.....	21
5. ELECTRICAL ADJUSTMENTS	.....	21
6. DIAGRAMS	.....	
6-1. Semiconductor Lead Layouts	.....	26
6-2. Circuit Boards Location	.....	27
6-3. Printed Wiring Boards —Tuner/CD/Deck Section—	.....	30
6-4. Schematic Diagram—Tuner Section—	.....	33
6-5. Schematic Diagram—CD Section—	.....	36
6-6. Schematic Diagram—Deck Section—	.....	39
6-7. Schematic Diagram —Power/Amplifier/Display Section—	.....	43
6-8. Printed Wiring Boards —Power/Amplifier/Display Section—	.....	47
6-9. IC Pin Description	.....	53
7. EXPLODED VIEWS	.....	
7-1. Case, Power Supply Block	.....	57
7-2. Front Panel, Main Board Block	.....	58
7-3. MD Chassis Block	.....	59
7-4. Mechanism Deck Block (1)	.....	60
7-5. Mechanism Deck Block (2)	.....	61
7-6. CD Block (1)	.....	62
7-7. CD Block (2)	.....	63
8. ELECTRICAL PARTS LIST	.....	64

## ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

## SECTION 1

### SERVICING NOTES

#### SAFETY CHECK-OUT

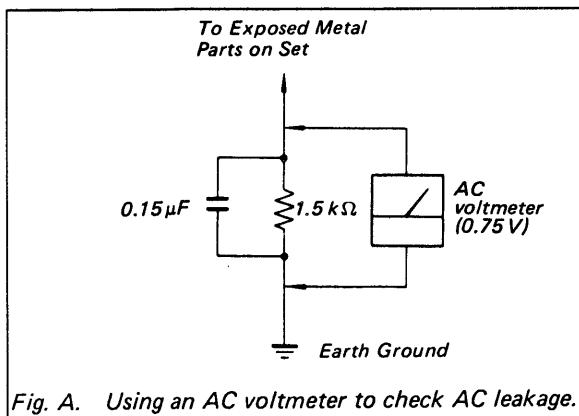
After correcting the original service problem, perform the following safety check before releasing the set to the customer:

Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

#### LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

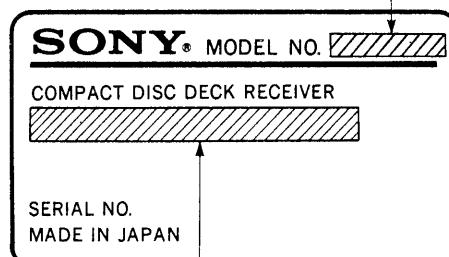
1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)



#### MODEL IDENTIFICATION

##### — Specification Labels —

HCD-H150  
HCD-H500



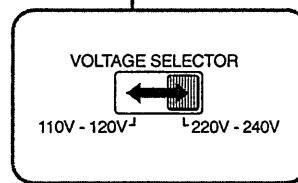
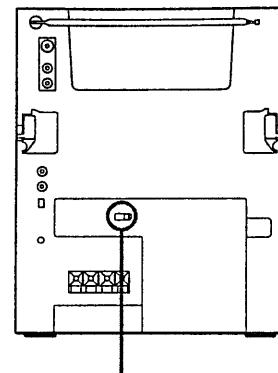
AEP model: AC: 220-230V~50/60Hz  
E, Tourist, Saudi Arabia, Australian model: AC: 110-120/220-240~50/60Hz 60W  
UK model: AC: 240V~50Hz 120W  
US model: AC: 120V~60Hz 60W  
Canadian model: AC: 120V~60Hz 80W  
East European, Germany, Italian model: AC: 220-230V~50Hz

#### On operating voltage

Before operating the stereo system, confirm that the operating voltage of your system is identical with the voltage of your local power supply.

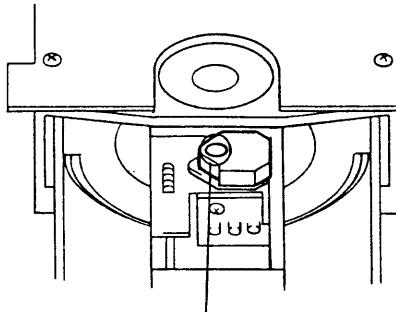
US, Canadian model	120V AC, 60Hz
AEP model	220-230V AC, 50/60Hz
E Saudi Arabia Tourist Australian model	110-120, 220-240V AC adjustable, 50/60Hz Before connecting the AC power cord to a wall outlet, make sure that the voltage selector at the rear is set to the local power line voltage. If not, <b>A</b> reset the selector.
East European, Germany, Italian model	220-230V AC, 50Hz

**A**



## LASER DIODE AND FOCUS SEARCH OPERATION CHECK

1. Make POWER switch on with no disc inserted and disc table closed.
2. Confirm that the following operation is performed while observing the objecting lens.



① Confirm that laser beam is spread.  
② Up and down motion of the objective lens. (3 times)

## NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.

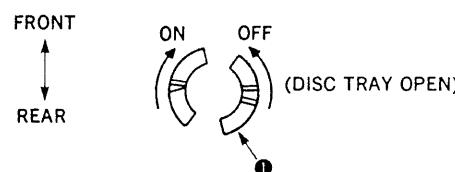
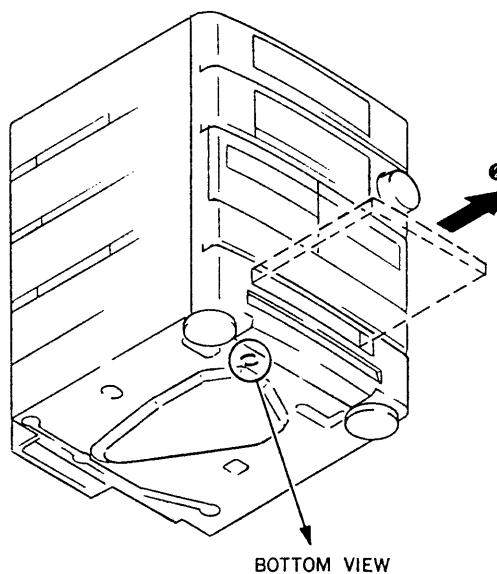
During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.

The flexible board is easily damaged and should be handled with care.

## NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

## HOW TO OPEN THE DISC TRAY WHEN POWER SWITCH TURNS OFF



- (1) Insert to ① for tapering driver, etc., and turn in the direction of arrow OFF. (Disc tray open)
- (2) Tray as come out little of front panel, pull out in the direction of arrow ② by hand.

## SECTION 2

### GENERAL

This section is extracted from instruction manual.

#### Tuner Section A

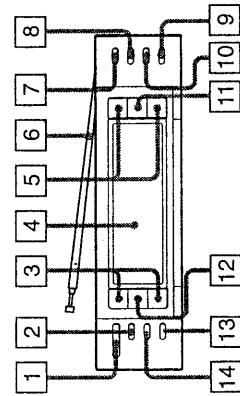
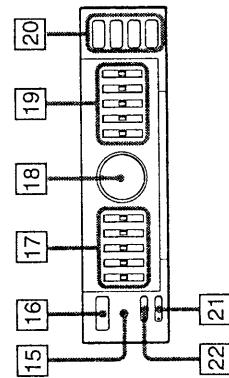
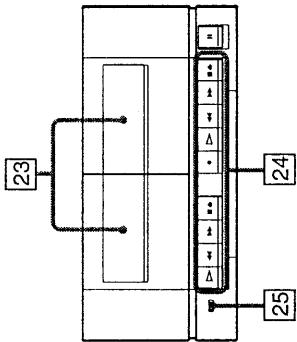
- 1 TIMER CONTROL button (56)
- 2 TIMER SET button (54)
- 3 PRESET/TIMER +/- (preset station scan/time set) buttons (20, 26, 54)
- 4 Display window
- 5 TUNING -/+ buttons (24)
- 6 Telescopic antenna (FH-B150 and FH-B155 only) (28)
- 7 AUTO tuning button (24)
- 8 MEMORY button (26)
- 9 NEXT button (20, 54)
- 10 ENTER button (26)
- 11 BAND selector (24)
- 12 SHIFT (memory page select) button (26)
- 13 CLOCK SET button (20)
- 14 CLOCK DISPLAY button (20)

#### Amplifier Section B

- 15 STANDBY indicator  
Remains illuminated as long as the AC power cord is connected to a wall outlet.
- 16 POWER switch
- 17 5-band graphic equalizer for left channel (22)
- 18 VOLUME control (22)
- 19 5-band graphic equalizer for right channel (22)
- 20 Function selectors (18, 24, 30, 42, 46)
- 21 S-SUR effect button (22)
- 22 DBFB (Dynamic Bass Feedback) button (22)

#### Cassette Deck Section C

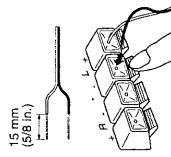
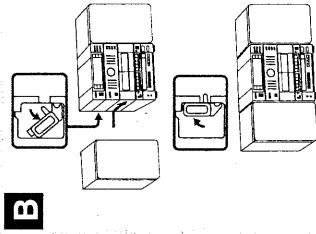
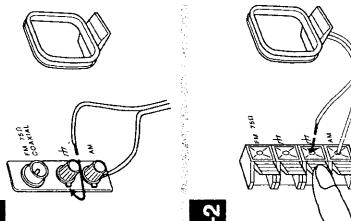
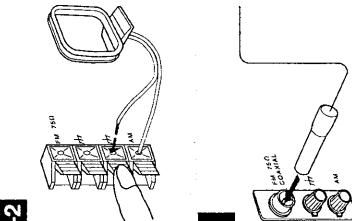
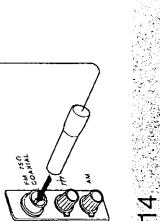
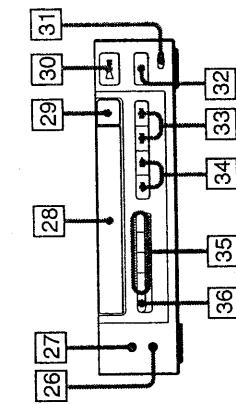
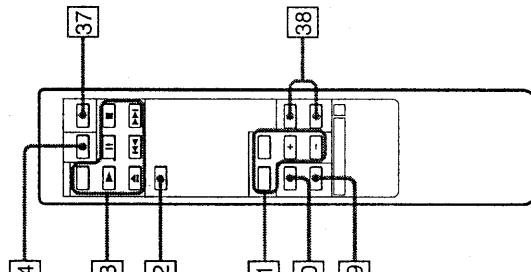
- 23 Cassette holders
- 24 Tape operation buttons
  - △ : PLAY (playback) button (42)
  - ▼ : REW (rewind) button (52)
  - ▲ : FF (fast forward) button (52)
  - : STOP/EJECT button (42)
  - : REC (record) button (46)
  - : PAUSE button (46)
- 25 DOLBY NR (Dolby Noise Reduction) switch (42, 46, 48)



**CD Player Section D****Remote Commander E****Connections**

[26] HEADPHONES jack (stereo minijack)  
(22)  
[27] MIX MIC (microphone) jack (minijack)  
(60)  
[28] Disc compartment  
[29] ▲ OPEN CLOSE button  
[30] ▶ (play/pause) button  
[31] EDIT button (48)  
[32] ■ (stop) button  
[33] [<] / [>] (Automatic Music Sensor)  
buttons (32)  
[34] ▶ / ▶ (manual search) buttons (32)  
[35] PLAY MODE selectors  
REPEAT play button (36)  
CONTINUE play button (36, 38)  
SHUFFLE play button (36)  
PROGFM play button (38)  
[36] TIME display selector (40)

[37] POWER switch  
[38] VOL (volume) +/− control buttons  
[39] VIDEO/AUX select button  
(Used only for models for other  
countries)  
[40] PHONO select button  
(Used only for European and U.K.  
model)  
[41] Tuner operation buttons  
[42] TAPE select button  
[43] CD player operation buttons  
[44] SLEEP timer button

**A****B****C-1****C-2****D****Notes on connection**

- Connect the AC power cord last.
- Cord plugs and jacks are color coded. Red plugs and jacks are for the right channel (R) and white ones for the left channel (L).

**Speaker Cord Connection A**

- 1 Strip the coating of the speaker cord by 15 mm (5/8 inches) from the end.
- 2 Connect the right speaker to R, with the red cord to + and the black cord to −. Connect the left speaker to L, with the red cord to + and the black cord to −.

**Attaching the speakers to the main unit B (FH-B150 and FH-B155 only)**

- 1 Unlock the stopper and slide the speaker so that it hooks to the system.
- 2 Lock the stopper.

**AM Loop Antenna Connection C****For the European and U.K. model****C-1****For the models for other countries****C-2**

- Connect the supplied AM loop antenna to the AM and  $\#$  terminals.

**FM Lead Antenna Connection D (MHC-500 only)**

- Connect the supplied FM lead antenna to the FM 75  $\Omega$  terminal and extend horizontally.

## Connections

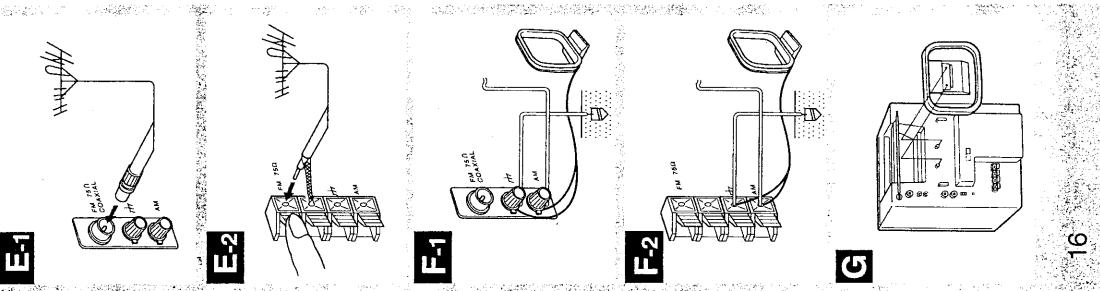
### For Better FM Reception E

#### For the European and U.K. model

**E-1** Connect the outdoor FM antenna to the FM75Q terminal, using 75-ohm coaxial cable and IEC standard socket connector.

#### For the model for other countries

**E-2** Connect the outdoor FM antenna to the FM75W and  $\lambda$  terminals, using 75-ohm coaxial cable.

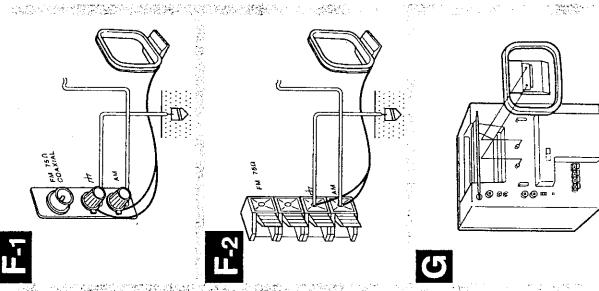


### For Better AM Reception F

#### For the European and U.K. model

**F-1** Use a 6- to 15-meter (20- to 50-feet) insulated wire for connecting the AM terminal.

Connect the  $\lambda$  terminal to a good ground.



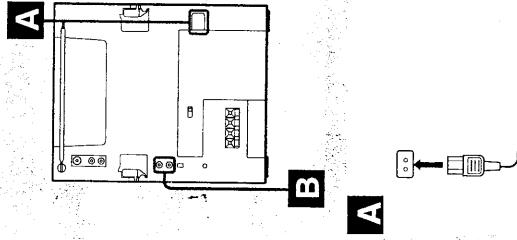
#### Important

When you use an external antenna, be sure to ground it against lightning. Never connect the ground wire to a gas pipe. Doing so is extremely dangerous.

To attach the AM loop antenna to the main unit in order to carry the unit  
See the illustration. **G**

### Power Connection A

Connect the supplied AC power cord to the AC IN connector and to a wall outlet.



### Adding Other Components to your System B

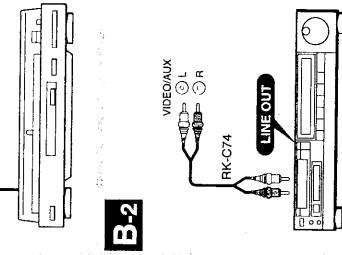
#### For the European and U.K. model

**B-1** You can connect a turntable system to the PHONO jack.  
To listen to the turntable system, press the PHONO button on the front panel.

### For the model for other countries

#### B-2

You can connect a VTR, etc. to the VIDEO/AUX jack.  
To listen to the connected equipment, press the VIDEO/AUX button on the front panel.



### Changing the MW tuning interval (except for the European and UK model)

The MW tuning interval is preset at the factory to 10 kHz for USA and Canadian models, and 9 kHz for the model for other countries. If you use a system where the frequency allocation system is different from the present interval, change the interval as follows.

- 1 Turn on the power.
- 2 Tune in any MW station.
- 3 Turn off the power.
- 4 Turn the power back on while pressing TUNING +.

To reset the interval, follow the same procedure.

#### Important

When the interval is changed, stored stations will be erased from the memory.

## Radio

### Setting the Clock

**Example: Set to 9:25 in the morning.**  
When the AC power cord is connected, the display shows:

0:00 for the European and UK model  
AM 0:00 for the model for other countries.  
AM 12:00 for USA and Canadian model.

#### 1 Press CLOCK SET.

2 Set the hour with PRESET/TIMER +/− buttons.

#### 3 Press NEXT.

4 Set the minutes with PRESET/TIMER +/− buttons.

5 Press NEXT.  
The clock starts operating.

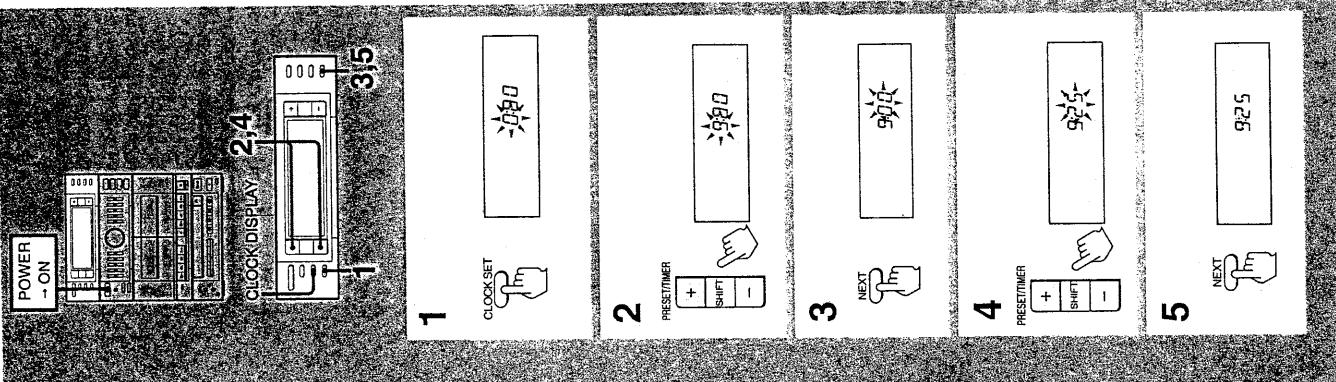
#### Information on the time

The European and UK model shows the time in a 24-hour cycle.  
The model for other countries show the time in a 12-hour cycle.

#### When a power interruption occurs

The power is backed up for approximately 1 day. If the power is recovered within 1 day, there is no need to reset the clock and timer. If it is longer than 1 day, both the clock and timer settings are erased, and "0:00"(AM 12:00) will flash on the display.

**To check the present time while using the system**  
Press CLOCK DISPLAY.  
The time display disappears after a few seconds.



The automatic tuning allows you to receive stations whose signal is sufficiently strong. When the signal is too weak, use the manual tuning.

### Tuning in Automatically

#### 1 Press TUNER.

2 Press BAND repeatedly until the desired band appears.  
As you press BAND, the band changes as follows:

USA and Canadian model:

FM → AM

European and UK model:

FM → MW → LW

Model for other countries:

FM → SW → MW

3 Press AUTO.  
Make sure that AUTO appears in the display.

4 Select the station with TUNING + or −.

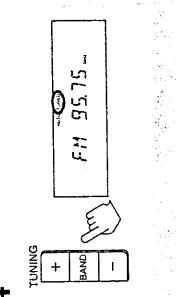
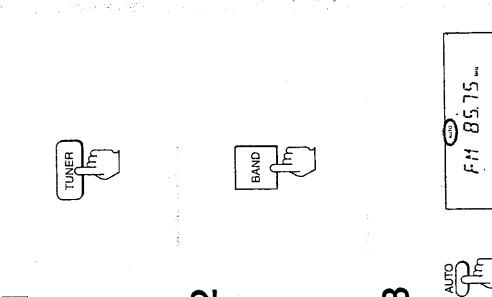
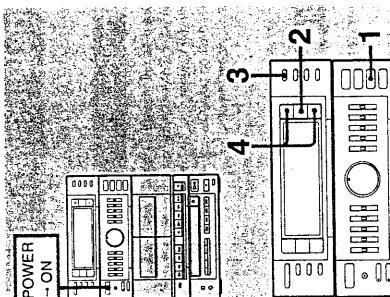
### Tuning in Manually

#### 1 Press TUNER.

2 Select band by pressing BAND.

3 Press AUTO so that AUTO disappears from the display.

4 Select station with TUNING + or −.



A total of 30 stations can be stored in any desired sequence, so that you can tune in the stored station directly by entering the memory page and number.

### Storing Stations

1 Tune in the desired station.

2 Press **MEMORY**.

**MEMORY** appears for several seconds.

3 While **MEMORY** is on, press **SHIFT** to select the memory page (A, B or C). The memory pages (A, B or C) can be classified according to the music category, station band, etc.

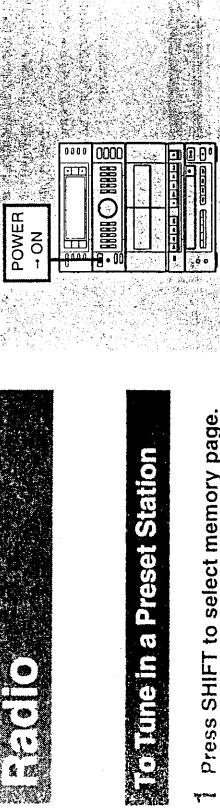
4 While **MEMORY** is on, press **PRESET/TIMER + or -** to select the number (1 to 10).

5 Press **ENTER**. **MEMORY** disappears and the station is stored.

6 Repeat 1 to 5 for each station to be stored.

If you cannot store a station successfully, Press **MEMORY** again so that **MEMORY** appears and then select the desired page and number. Be sure to operate while **MEMORY** is on (approx. 4 seconds).

When you have selected the wrong page and number, Press **MEMORY** and then select the correct page and number.



### Tune in a Preset Station

1 Press **SHIFT** to select memory page.

2 Press **PRESET/TIMER + or -** to select the desired number.

### Indicator on the display

**TUNED**: Appears when a station of sufficient signal strength is tuned in.

**STEREO**: Appears when an FM stereo program of sufficient signal strength is received.

### Antenna adjustment

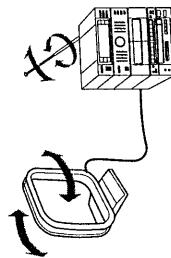
**A** For FM reception, adjust the length and direction of the telescopic antenna (FH-B150 and FH-B155 only).

**B** For AM (MW, LW, and SW) reception, find the best location of the AM loop antenna.

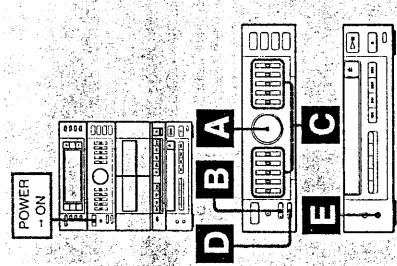
Can a previously stored station be erased? No. Erasing only is not possible, but storing a new station replaces the previous one.

### Important

The stored stations remain for approximately 1 day even if no power is supplied (e.g. the power cord is disconnected, etc.). If they are erased, store the stations again.



## Audio Adjustment



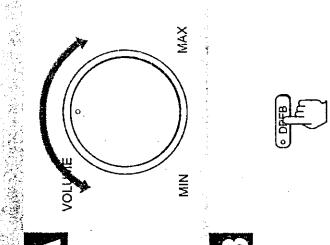
### Volume Adjustment

Turn VOLUME **A** clockwise to increase the sound level, or counterclockwise to decrease it.  
(Or press VOL + or - on the remote commander.)

### Sound Quality Adjustment

#### To reinforce bass

Press DBFB. **B**  
The lower the sound level is, the more the bass is emphasized.



**To adjust sound quality to your preference**  
Adjust the graphic equalizer controls for the right and left speaker outputs individually.  
**C**

100 Hz: Boost or cut heavy bass.  
400 Hz: Adjust the power, spaciousness and warmth of the sound.  
1 kHz: Increase the presence of vocals.  
4 kHz: Enhance the brightness of sound, or reduce stridency.  
12 kHz: Highlight the fine details of instrumental sound.

**To activate surround effect for stereo sound**  
Press S-SUR (simulated surround) **D**  
during a stereo sound reproduction. This creates the atmosphere of a movie theater or concert hall.  
This function is not effective for a monaural sound.  
**E**

**For personal listening**  
Connect headphones to HEADPHONES **E**.  
No sound comes from the speakers.

## Disc Playing

### Playing the Entire Disc

- 1 Press CD.
- 2 Press  $\Delta$  OPEN/CLOSE to open the tray.
- 3 Place the disc with the printed side up.
- 4 Press  $\triangleright$ .  
The tray closes and play starts.

The display shows **A** the track number, **B** elapsed playing time of the track and **C** track numbers.

- 1
- 2
- 3
- 4

**Caution on adjusting volume**  
Do not turn up the volume while listening to a portion with very low level inputs or no audio signals. If you do, the speakers may be damaged when a peak level portion is played.

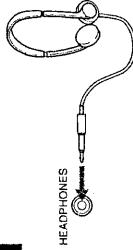
- 1
- 2
- 3
- 4

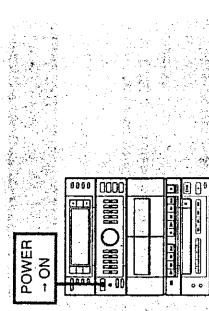
**To stop play**  
Press **■**.

**To stop for a moment during play**  
Press  $\triangleright$ .  
To resume play, press it again.

**To play and open the tray**  
Press  $\Delta$  OPEN/CLOSE.  
To play a 8 cm (3-inch) CD  
Place it on the inner circle of the tray. If the disc is provided with an adaptor, first remove it. Do not put a normal CD (12 cm/5-inch) on top of an 8 cm (3-inch) CD.

**When the TUNER function is selected**  
The CD player section does not operate. This prevents interference with radio reception.



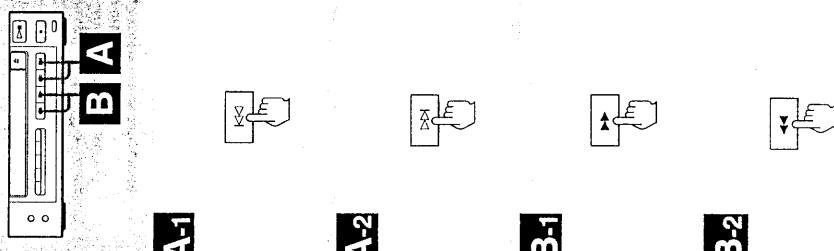


## Locating a Particular Selection — Automatic Music Sensor (AMS)

The AMS locates the beginning of a selection. This function works during play or pause.

**To locate the beginning of the current or preceding selection A-1**  
Press  $\triangleright\ll$  as many times as required. Keep  $\triangleright\ll$  pressed to skip selection.

**To locate the beginning of a succeeding selection A-2**  
Press  $\triangleright\ll$  as many times as required. Keep  $\triangleright\ll$  pressed to skip selection.



## Locating a Particular Point in a Selection

You can locate any particular point in the disc during play.

**To search while monitoring the sound**  
**To move forward at high speed B-1**  
Keep  $\blacktriangleright$  pressed during play and release at the desired point.

**To move backward at high speed B-2**  
Keep  $\blacktriangleleft$  pressed during play and release at the desired point.

**To search quickly**  
**1 Press  $\triangleright\ll$  to set the unit in pause mode.**

**2 Keep  $\blacktriangleleft$  or  $\blacktriangleright$  pressed.**  
The search speed increases, but there is no sound. Find the desired point by observing the display.  
Press  $\triangleright\ll$  again at the desired point.

## Information display

To change the time display, press **TIME** during play.

As you press **TIME**, the display changes to give you the following information.

**A** Elapsed playing time

**B** Remaining time in a selection. If the current selection number is over 20, “—. —.” is displayed.

**C** Remaining time of the disc

When **TIME** is pressed with a disc in the tray **D**

The following appear for approx. 5 seconds.

**a** Last track number

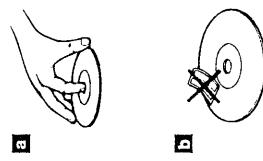
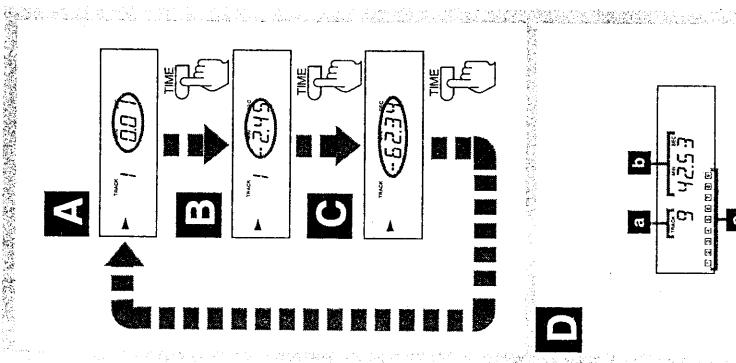
**b** Total playing time of the disc

**c** Track numbers

For discs containing 17 selections or more, up to 17 appear and the rest do not appear.

**Notes on handling discs E**

- To keep the disc clean, handle the disc by its edge. Do not touch the surface. **a**
- Do not stick paper or tape on the disc. **b**
- Do not expose the disc to direct sunlight or heat sources such as a hot air duct, or leave it in a car parked in direct sunlight as there may be a considerable rise in the temperature.
- After playing, store the disc in its case.



# Disc Playing

**Playing in a Random Order — Shuffle Play**

Shuffle play function plays all the selections in a random order.

- 1 Press  $\Delta$  OPEN/CLOSE to open the tray.
- 2 Place the disc.
- 3 Press  $\blacktriangle$  OPEN/CLOSE to close the tray.
- 4 Press SHUFFLE. SHUFFLE appears.
- 5 Press  $\triangleright$  .
- To stop playing Press  $\blacksquare$ .
- To cancel shuffle play Press CONTINUE. SHUFFLE disappears, and play continues in the normal play mode.

## Playing in a Desired Order — Program Play

You can make a program for up to 24 selections in the order you want them to be played.

1 Insert the disc.

2 Press PROGRAM. PGM appears in the display.

3 Press  $\blacktriangleleft$  or  $\triangleright$  to display the desired selection.

4 Press PROGRAM.

5 Repeat steps 3 and 4 for the desired selections.

A Last programmed selection

B Total playing time of selections

C Programmed selection numbers

6 Press  $\triangleright$  .

To stop playing

Press  $\blacksquare$ .

To restart the same program play, press  $\triangleright$  .

To resume normal play

Press CONTINUE.

The program is erased and the play continues in the normal play mode.

## Playing Repeatedly — Repeat Play

To repeat all selections **A**

Press REPEAT once during play so that REPEAT appears.

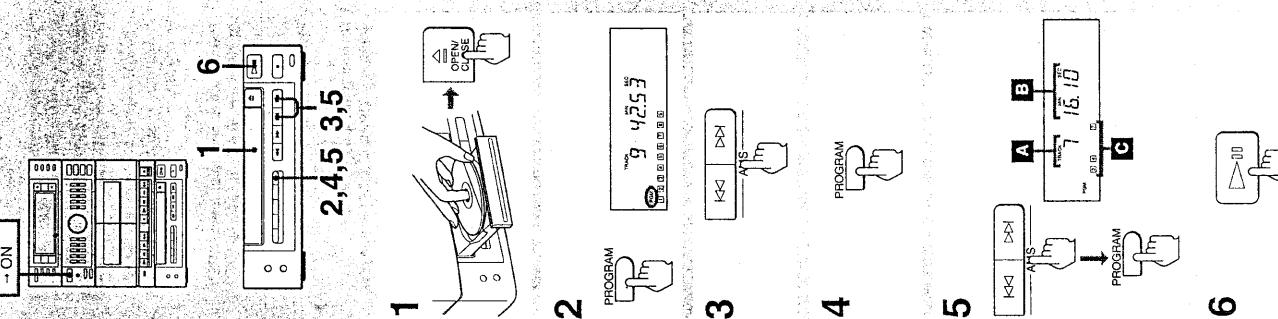
To repeat single section **B**

Press REPEAT twice while playing the desired section so that REPEAT 1 appears.

To cancel repeat play **C**

Press REPEAT so that neither REPEAT nor REPEAT 1 is on.

**Playing in a Desired Order — Program Play**



1 Insert the disc.

2 Press PROGRAM.

3 Press  $\blacktriangleleft$  or  $\triangleright$  to display the desired selection.

4 Press PROGRAM.

5 Repeat steps 3 and 4 for the desired selections.

A Last programmed selection

B Total playing time of selections

C Programmed selection numbers

6 Press  $\triangleright$  .

To stop playing

Press  $\blacksquare$ .

To restart the same program play, press  $\triangleright$  .

To resume normal play

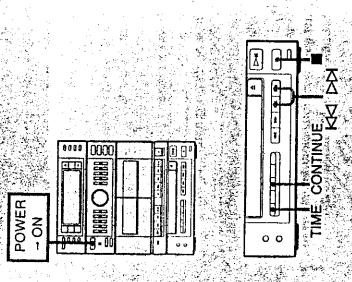
Press CONTINUE.

The program is erased and the play continues in the normal play mode.

If “—” is displayed instead of the actual time

- You have programmed a selection number over 20.
- The total time has exceeded 100 minutes.

## Tape Playback



### To check your program

- 1 Press  $\triangleright$  to enter the pause mode.
- 2 Press  $\triangleright$ .

As you press  $\triangleright$ , the track numbers appear in the order in which they are programmed.

When you finished checking, press  $\blacksquare$  once. (Be sure that you press  $\blacksquare$  only once. If you press it twice, the program will be erased.)

### To add a selection to the end of the program

Follow the same procedure as "Playing in a Desired Order" while the unit is in the stop mode.

You cannot add selections during play.

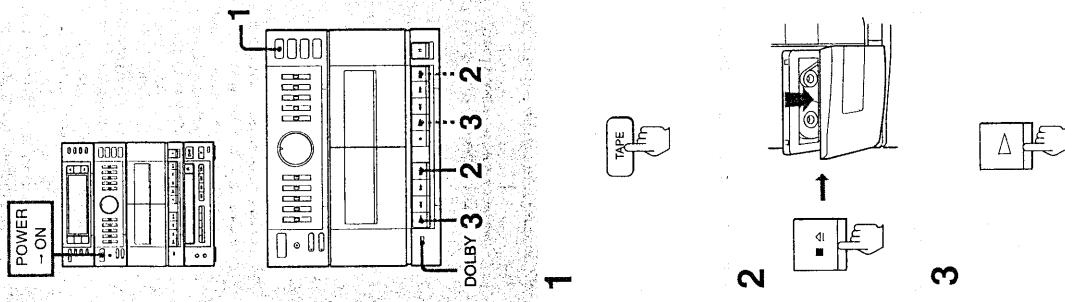
### To erase the entire program

Press  $\blacksquare$  once during stop; twice during play.

The program is also erased when you press  $\blacktriangle$  to open the tray or turn off the system.

### To check the remaining time

Press TIME once to see the remaining time of the selection being played; twice to see the total remaining time of the programmed selections; once more to return to the initial display.



## Playback Operation

- 1 Press TAPE.

TAPE appears in the display.

- 2 Insert the tape.

- 3 Depress  $\triangleright$ .

To stop playback  
Press  $\blacksquare$ .

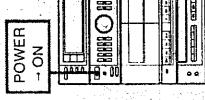
When listening to a cassette recorded with Dolby noise reduction system,\*  
Set DOLBY NR to ON.

### What is the Dolby NR system?

Dolby NR (noise reduction) system reduces tape hiss noise in low-level high-frequency signals. The system boosts these signals in recording and lowers them in playback.

\* Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.  
"DOLBY" and double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

## Recording (Deck B)



- 1 Insert recorded cassettes in both decks.

- 2 Depress  $\blacktriangleright$  on deck A.
- 3 Depress  $\blacktriangleright$  on deck B.

To stop relay play  
Press  $\blacksquare \blacktriangle$  of the deck playing.

### Notes on Cassettes

To protect recording **A**  
Break off the tab on the left side of the cassette whose recording is to be protected.

To re-record the cassette **B**  
Cover each slot with plastic tape.

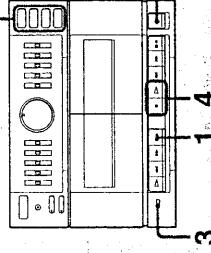
When using a TYPE II ( $\text{CrO}_2$ ) cassette, be careful not to cover the detector slots which are necessary for automatic tape type detection. **C**

### Playing from Deck A to B in Succession - Relay Play

When the front side of the tape in deck A has been played back, the front side of the tape in deck B starts playback automatically.

### Recording Operation

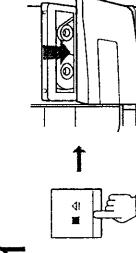
2



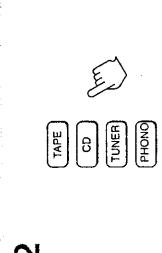
Use only TYPE I (normal) or TYPE II ( $\text{CrO}_2$ ) tapes for recording.

- 1 Insert a tape in deck B.
- 2 Select program source with the function selectors and play it. The display shows the selected program source.

3



4



3



Set DOLBY NR.  
To use the Dolby NR system, set DOLBY NR to ON. Otherwise, set it to OFF.

4



Depress  $\bullet$ .  
 $\blacktriangleright$  is depressed at the same time.  
Recording starts.

2



Notes  
• Graphic equalizer controls are not effective for recording.  
• The recording level is fixed and cannot be adjusted manually.

How to start recording precisely  
1 Depress  $\blacktriangleright$  after step  $\blacktriangleright$  in "Recording Operation" above.  
2 Depress  $\bullet$ .  
 $\blacktriangleright$  is depressed at the same time.  
3 Press  $\blacktriangleright$  again at the desired point.

4



If whistling noise is heard during MW and LW recording  
(only for the European and UK model)  
Slide the ISS (Interference Suppress Switch) at the rear to the position depending on which best reduces the noise.

**Editing the CD for Recording**

The CD player automatically edits the selections on a CD according to the tape length.

**1 Insert the tape in deck B and the disc in the CD player.**

**2 Set DOLBY NR.**

To use the Dolby NR system, set DOLBY NR to ON. Otherwise, set it to OFF.

**3 Press CD of the function selector.**

**4 Press EDIT.**

Make sure that EDIT and ---- appear in the display.

**5 Designate the tape length of one side using ▶▶ and ▶◀, or ▷▷ and ▷◁.**

As you press ▶▶ or ▶◀, the minute display changes as follows:

23 ↔ 27 ↔ 30 ↔ 37 ↔ 45 ↔ ...

As you press ▷▷ or ▷◁, the seconds increase or decrease by 10. After 50, the seconds show 00 and the minutes increase by 1.

**6 Press EDIT.**

The selections to be recorded are determined automatically. For details, see page 50.

Then the display shows **A** the last selection to be recorded, **B** total playing time, and **C** selections to be recorded.

**7 Depress ●.**  
▷ is depressed at the same time.

**8 Press ▷▷ on the CD player.**  
The recording starts.

**Note**

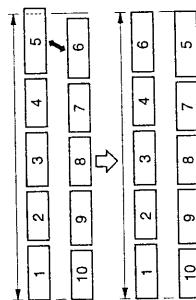
- Up to 20th selection on the disc can be recorded. The 21st selection cannot be recorded.
- In step 5, designate the total playing time shorter than the tape length.

**To record on both sides**

After step 6, press EDIT again for the reverse side and then proceed with the remaining steps.

The CD player enters the pause mode after recording on the front side.

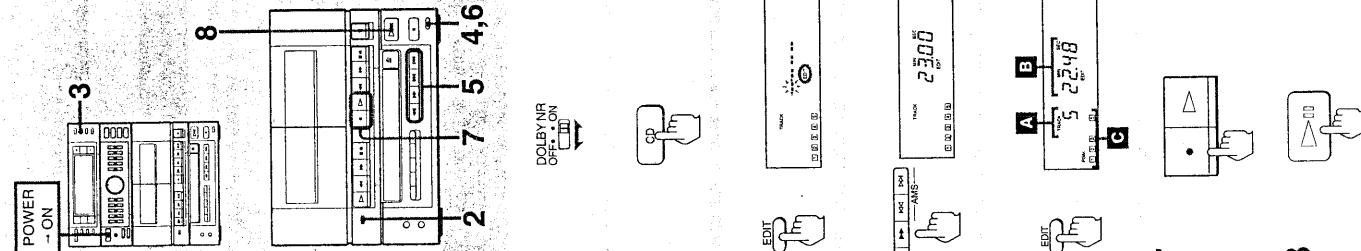
During pause, take out the cassette and reverse it. Then set the cassette deck in the recording mode and restart the CD playback.

**A****To record desired selections on the front side**

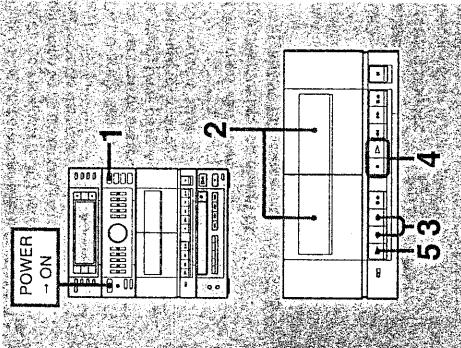
Before pressing EDIT, program the desired selection. (See page 38.)

**How the CD player determines the selections **A****

The CD player selects the selections from the first one on the CD, adding up each playing time. When the total playing time exceeds the specified tape length, the last selection is eliminated. Then, the CD player looks for a selection whose length fits within the remaining tape and substitutes it for the eliminated one.



## Timer-activated Operation



### Tape Dubbing (from deck A to B)

#### Editing the Tape

- 1 Press TAPE of the function selector.
- 2 Insert the recorded tape in deck A, and the blank tape in deck B.
- 3 Locate the beginning of the portion to be dubbed on deck A, using  $\blacktriangleleft$  or  $\blacktriangleright$  and then stop the tape.
- 4 When dubbing the whole side of the tape, skip this step.

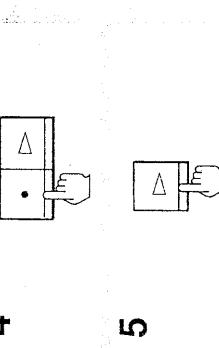
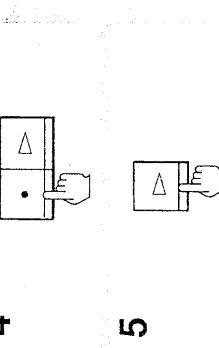
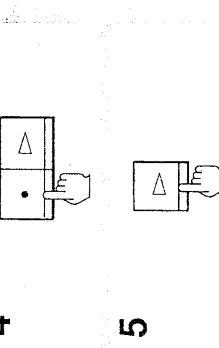
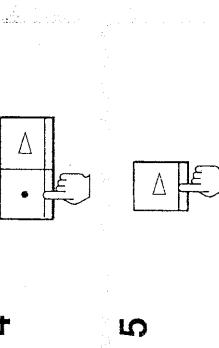
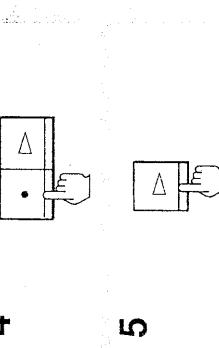
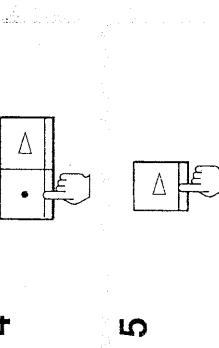
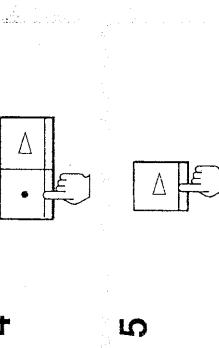
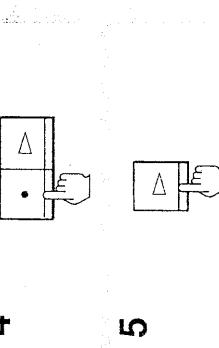
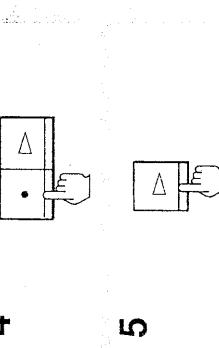
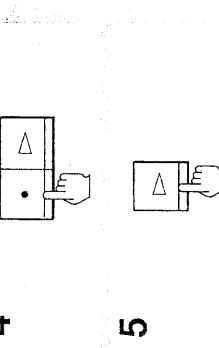
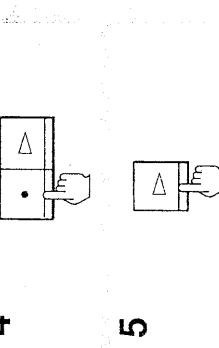
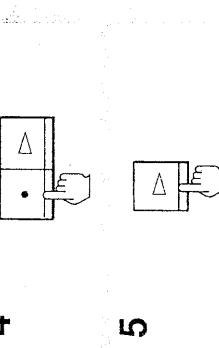
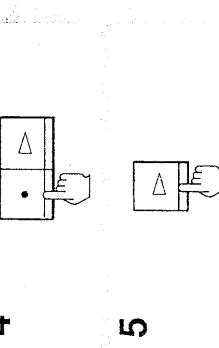
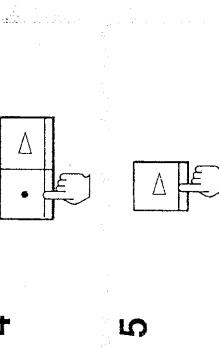
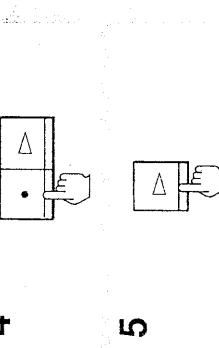
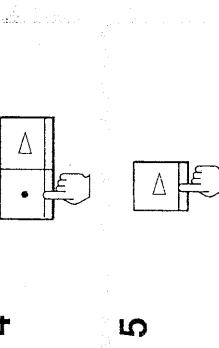
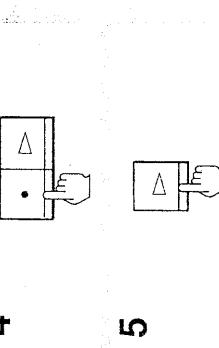
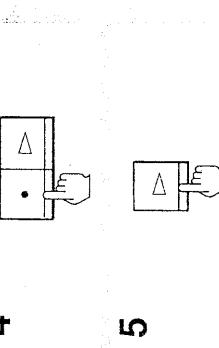
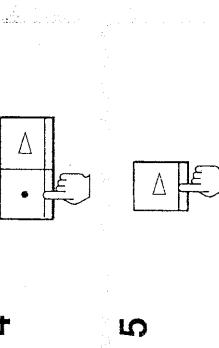
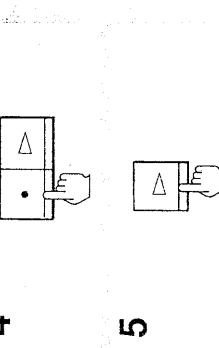
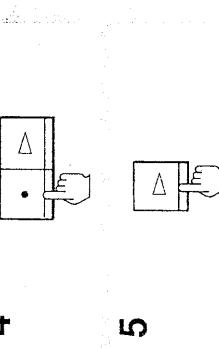
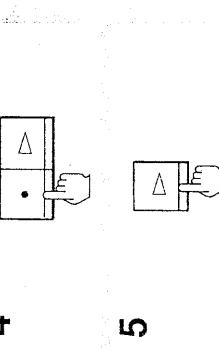
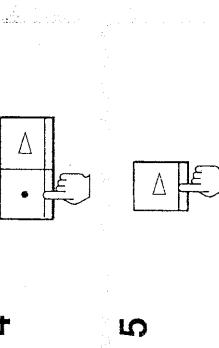
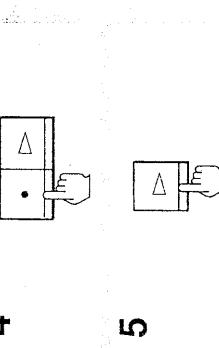
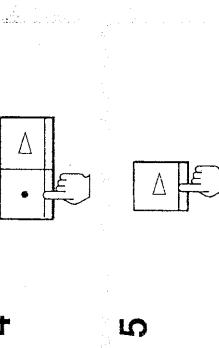
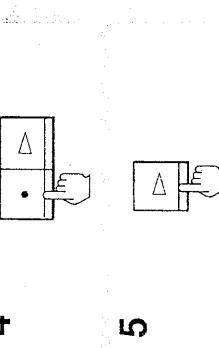
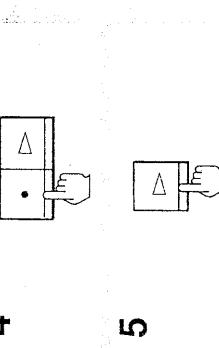
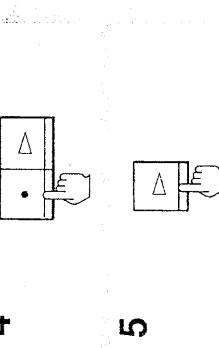
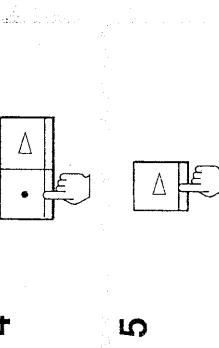
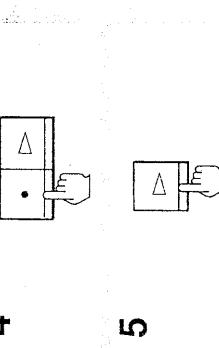
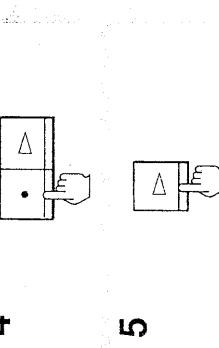
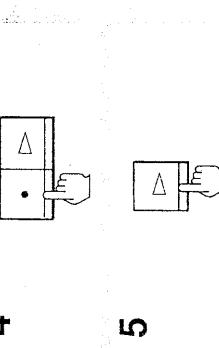
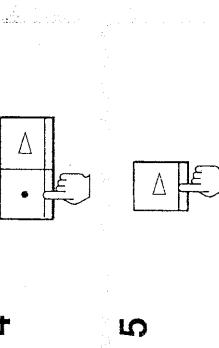
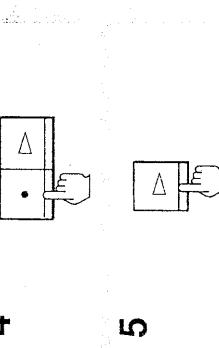
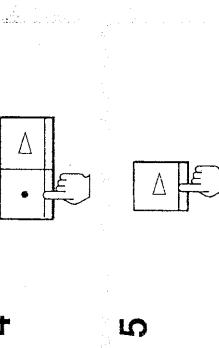
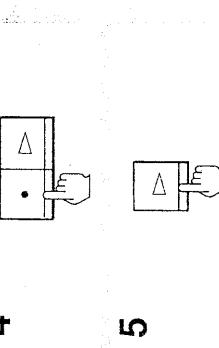
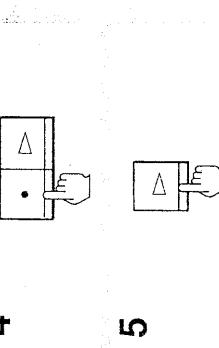
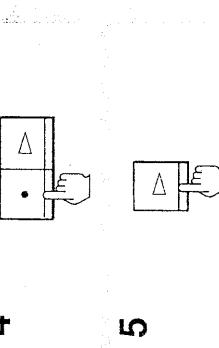
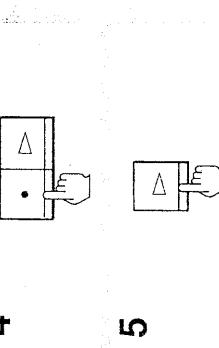
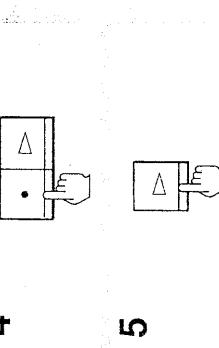
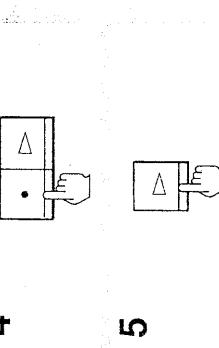
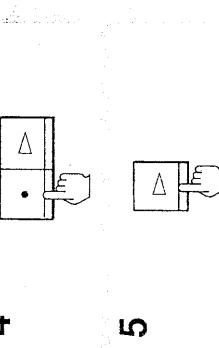
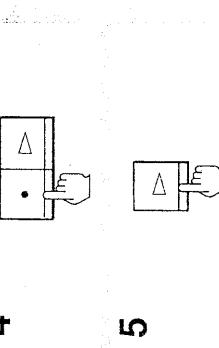
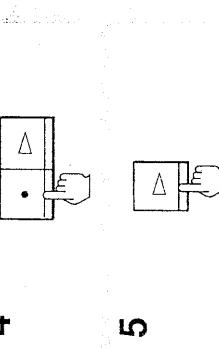
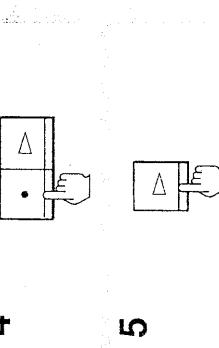
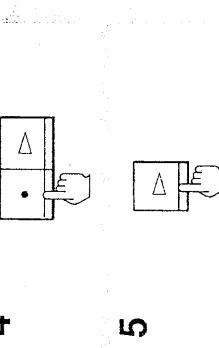
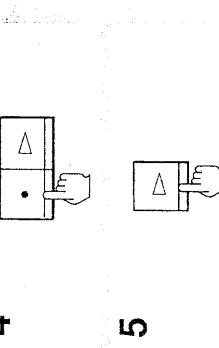
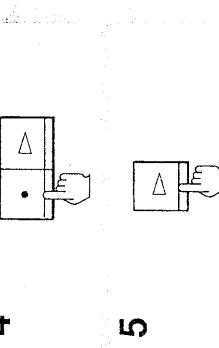
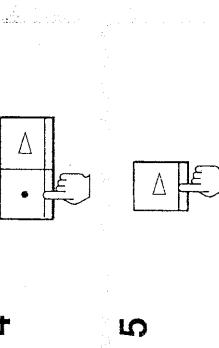
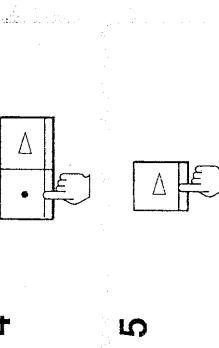
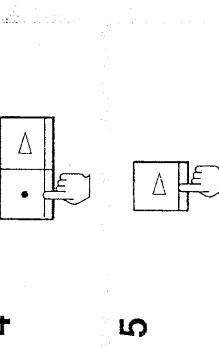
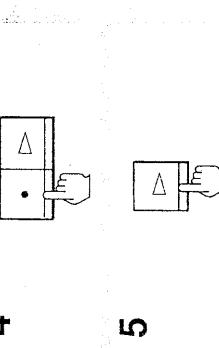
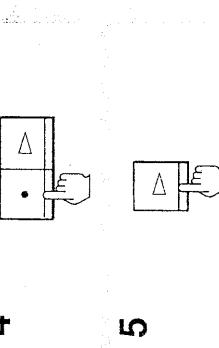
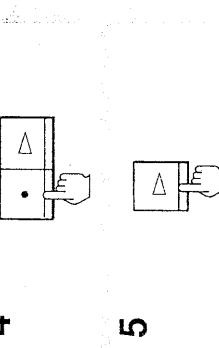
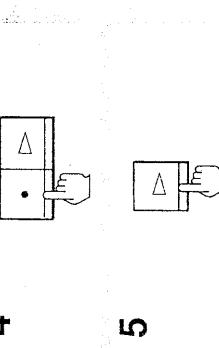
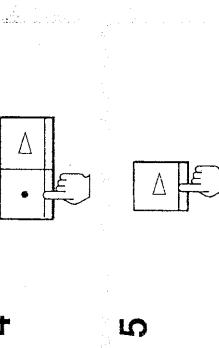
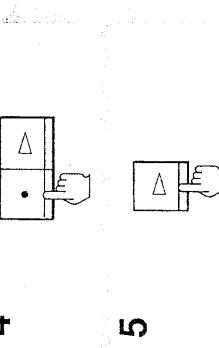
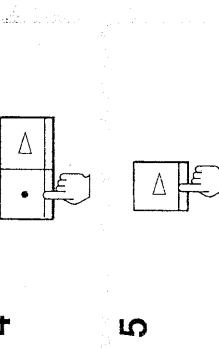
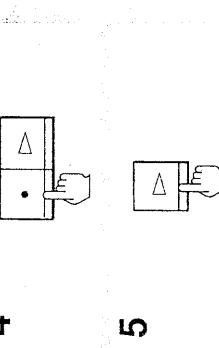
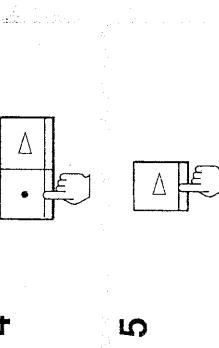
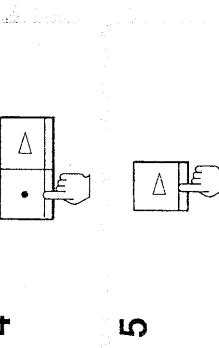
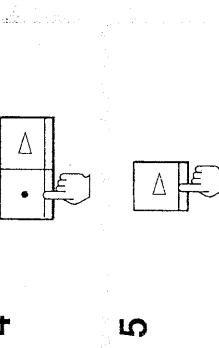
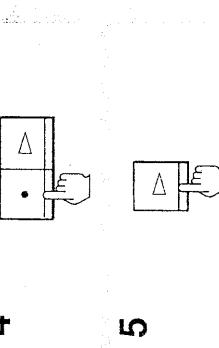
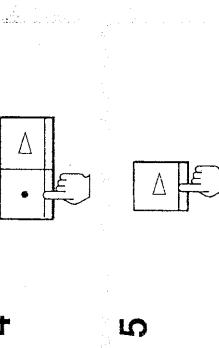
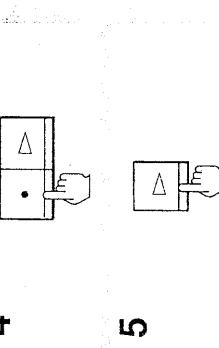
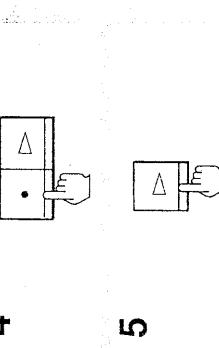
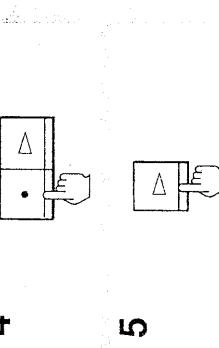
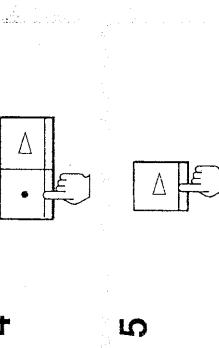
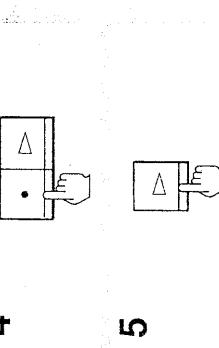
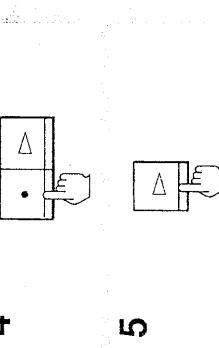
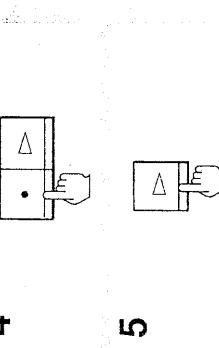
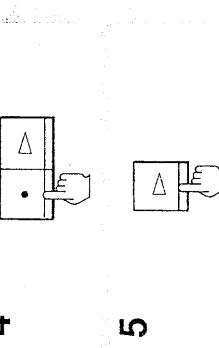
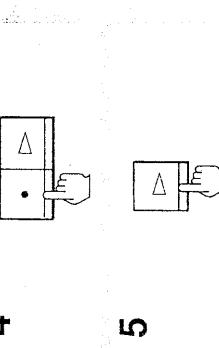
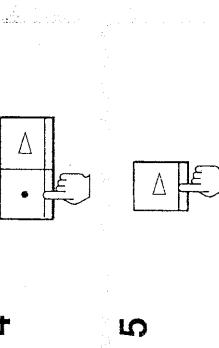
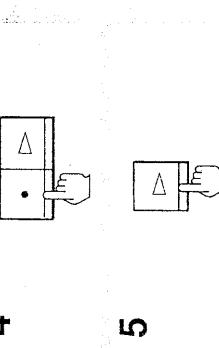
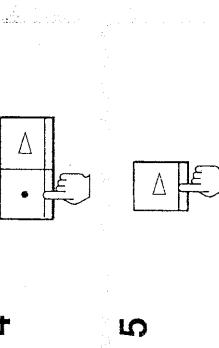
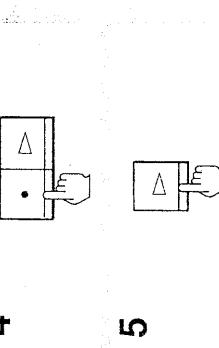
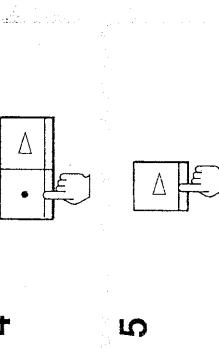
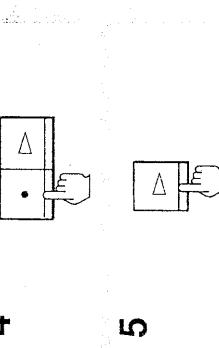
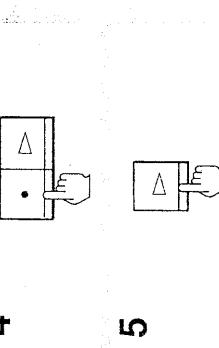
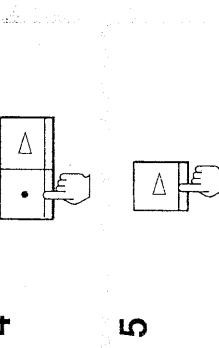
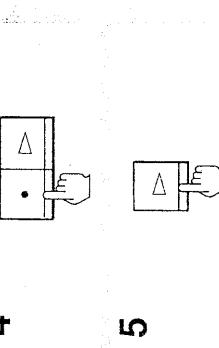
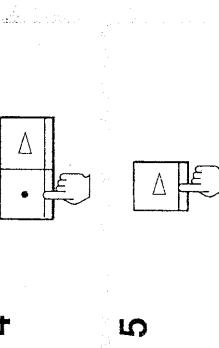
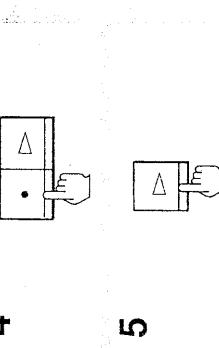
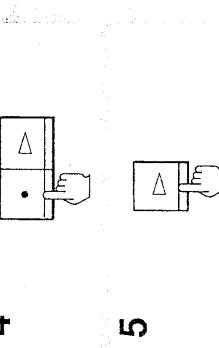
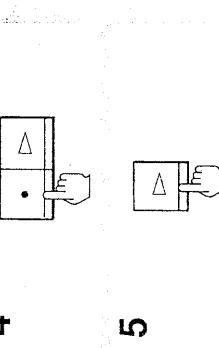
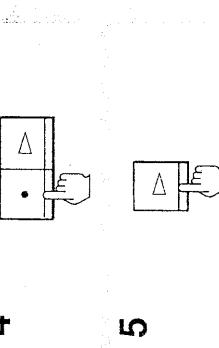
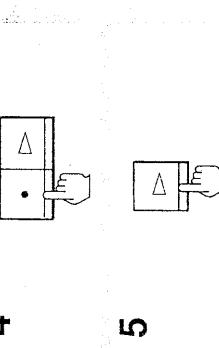
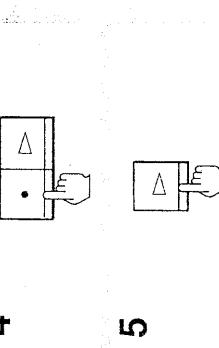
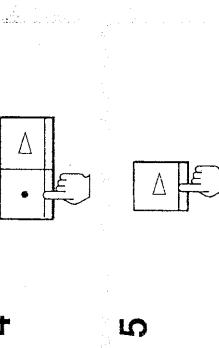
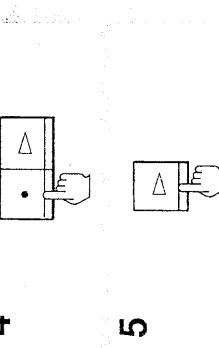
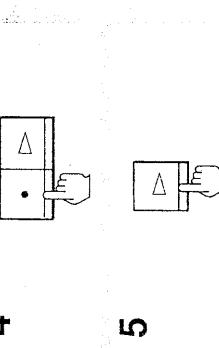
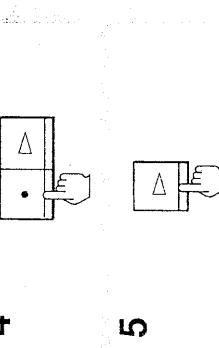
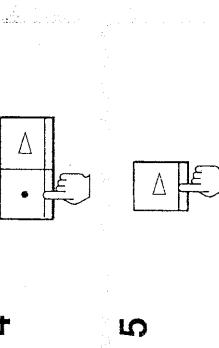
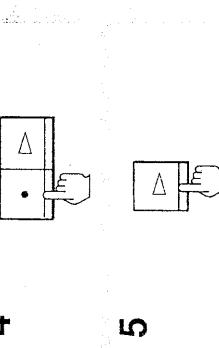
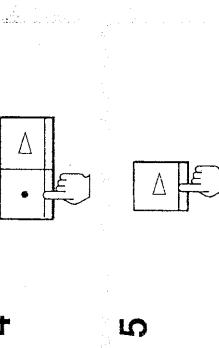
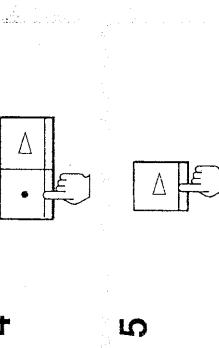
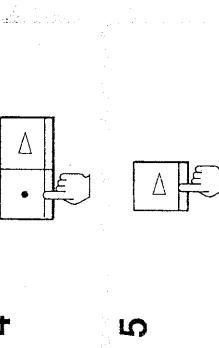
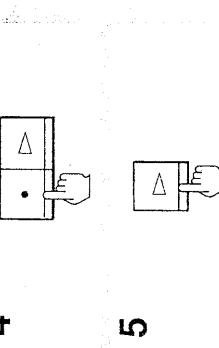
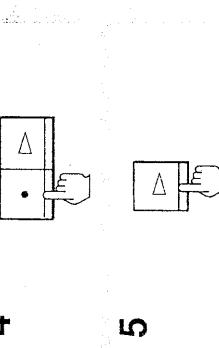
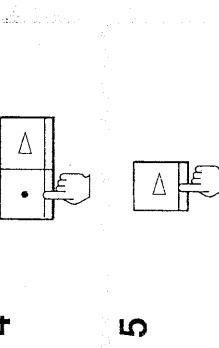
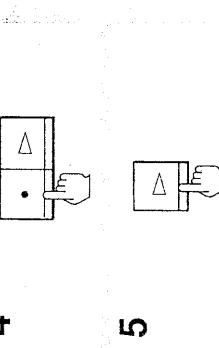
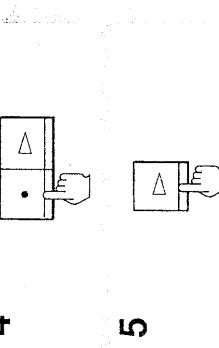
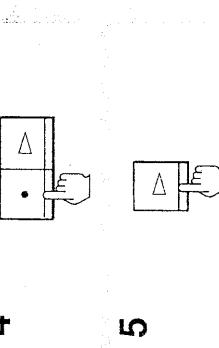
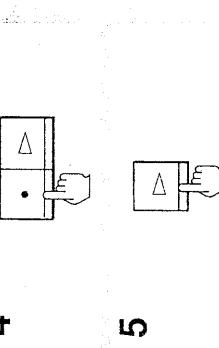
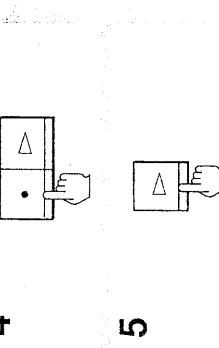
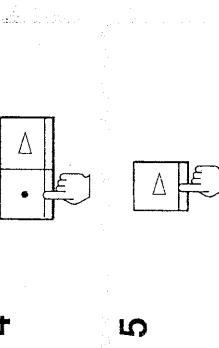
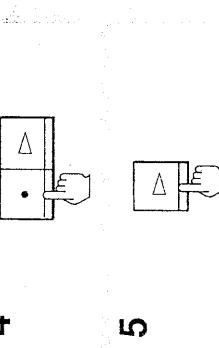
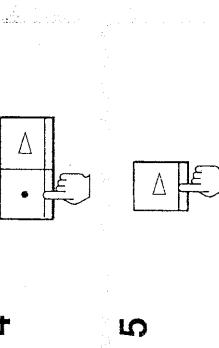
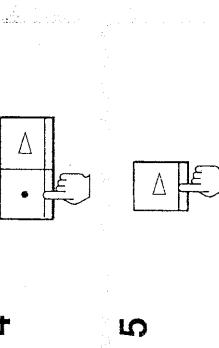
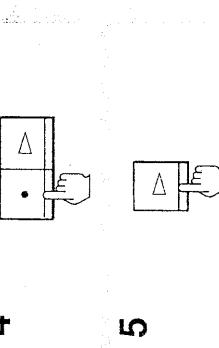
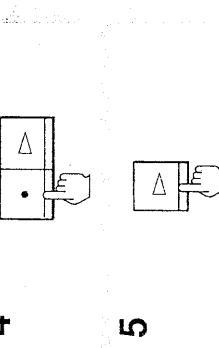
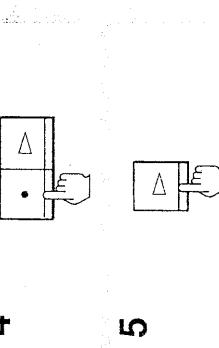
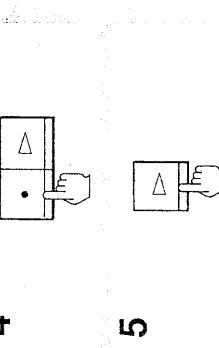
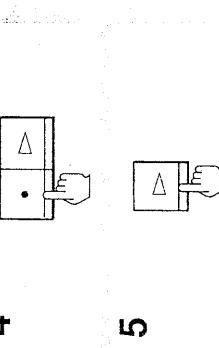
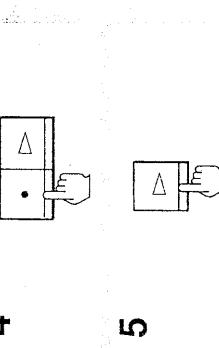
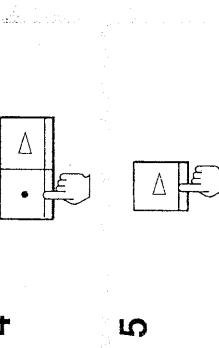
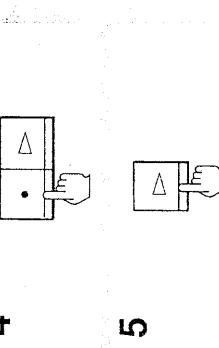
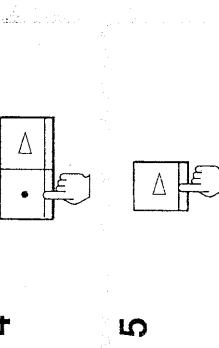
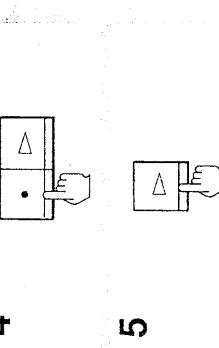
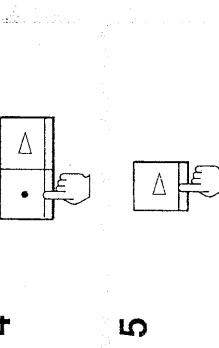
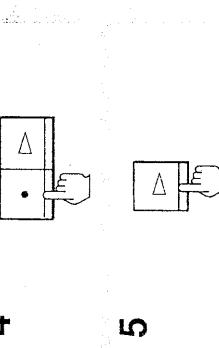
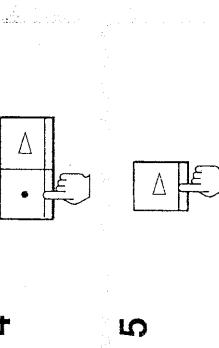
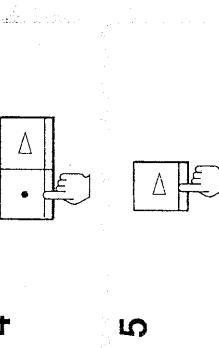
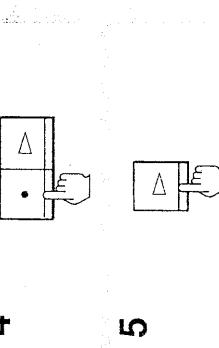
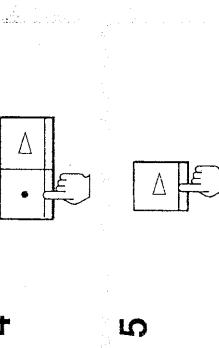
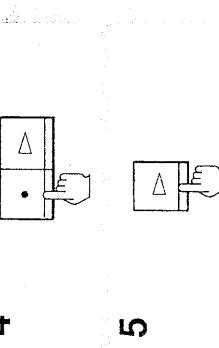
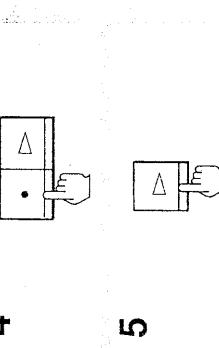
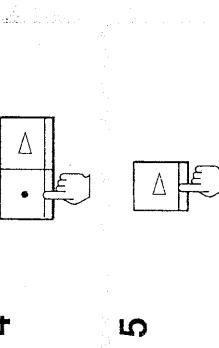
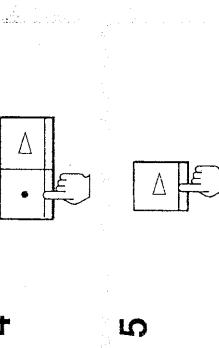
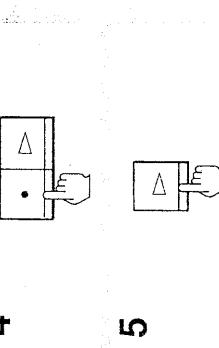
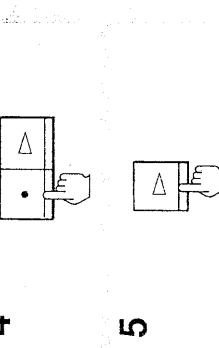
- 4 Depress  $\bullet$ .  $\blacktriangleright$  is depressed at the same time.

- 5 Press  $\blacktriangleright$  of deck A. Dubbing of the desired portion starts.

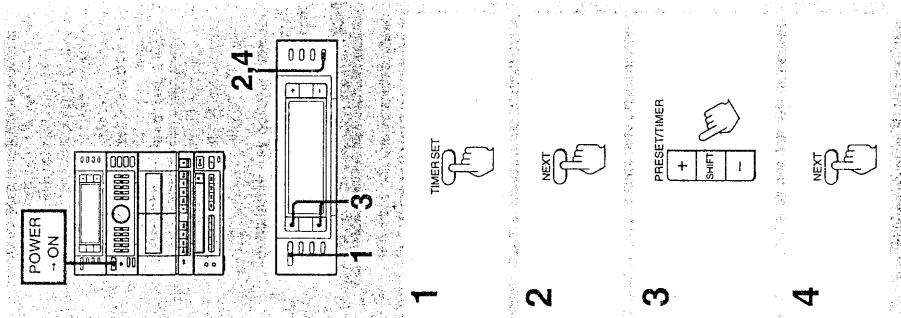
- To stop dubbing  
Press  $\blacksquare$  on both decks.

- Is it necessary to set DOLBY NR?  
Yes. Set DOLBY NR according to the playback tape.

Is it possible to listen to program sources other than tape during dubbing?  
No. The source changes to that of the function selector pressed and the tape playback cannot be dubbed.



## Sleep Timer Operation



**To change the time and program**

- 1 Press TIMER SET. The timer-on hour flashes.

- 2 Press NEXT until the item to be changed flashes.

- 3 Press PRESET/TIMER + or - until the desired time or source appears.

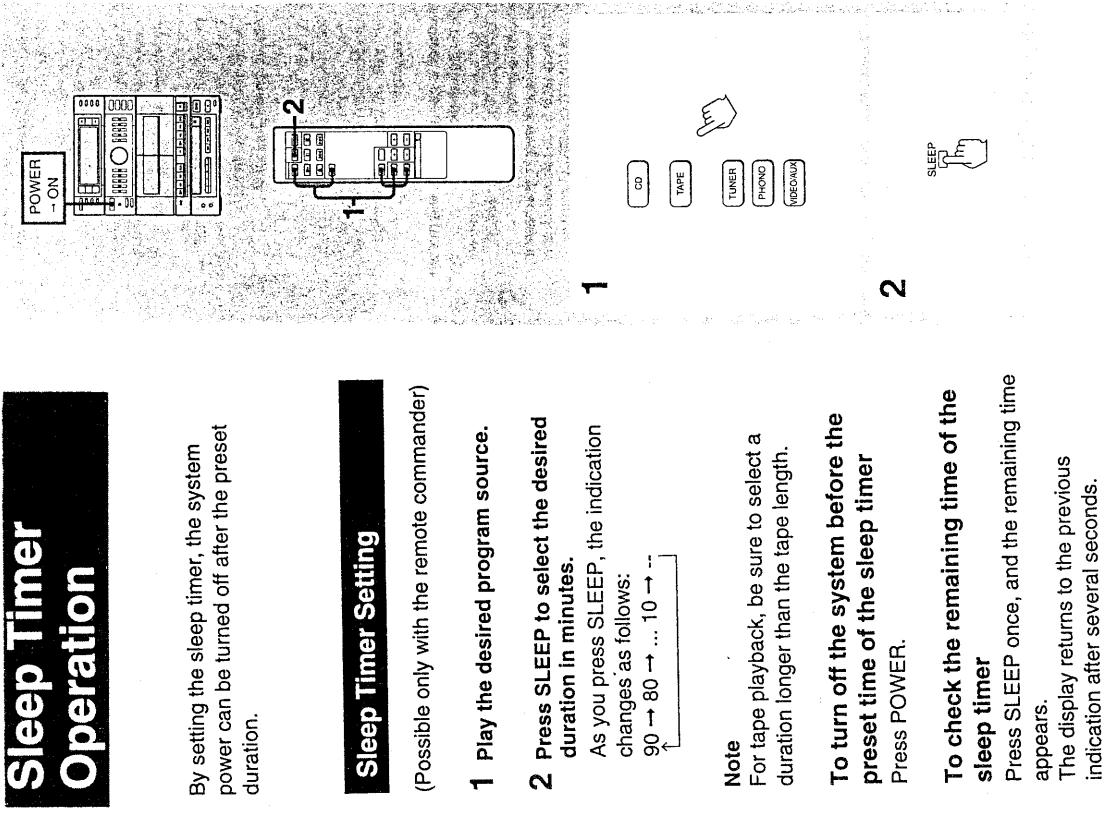
- 4 Press NEXT until TIMER ON time appears.

The display, then shows TIMER OFF time, and returns to the previous display.

**When you do not want to operate the timer program**

Press TIMER CONTROL to turn off TIMER. To reactivate the timer, press TIMER CONTROL to display TIMER.

**When the power is already on at the preset time**  
The function mode will be automatically changed to the preset one, even if you are playing a program of another function.

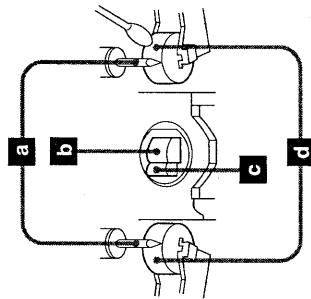


## Maintenance

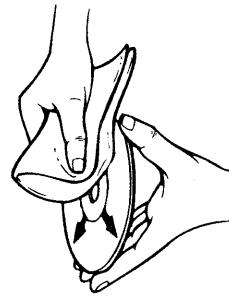
### Cleaning the Heads and the Tape Paths A

Clean after every 10 hours of operation and before recording for optimum record/playback quality.

- 1 Press **■ ▲** to open the cassette holders.
- 2 Slightly moisten the tip of a cotton swab with cleaning fluid or alcohol.
- 3 Wipe the parts shown in the illustration:
  - a** Cassette
  - b** Record/playback head
  - c** Erase head
  - d** Pinch roller
- 4 Do not insert a cassette until cleaned areas are completely dry.



**B**



### Demagnetizing the Heads

After 20 to 30 hours of use, it is necessary to remove residual magnetism built up on the heads using any commercially available demagnetizer. For the demagnetizing procedure, refer to the instruction manual of the demagnetizer.

### Cleaning Discs B

When a disc becomes dirty, clean it with a cleaning cloth. Wipe the disc from the center out. Do not use solvents such as benzine, thinner, commercially available cleaners, or anti-static spray intended for analog discs.

### Cleaning the Cabinet

Use a soft cloth slightly moistened with mild detergent solution.

## Microphone Mixing

### Mixing Operation

- 1 Connect the microphone to **MIX MIC** jack.

- 2 Select program source with the function buttons and play it.
- 3 Sing or speak into the microphone.
- 4 Adjust the total volume.

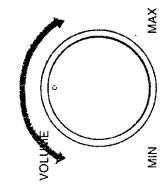
When the mixing is over

Be sure to disconnect the microphone.

### Recording the Sound Mixed with a Source

- 1 Mix the sound as described above.
- 2 Insert a tape in deck B.
- 3 Set deck B to record mode.

### Recording from a Microphone Only



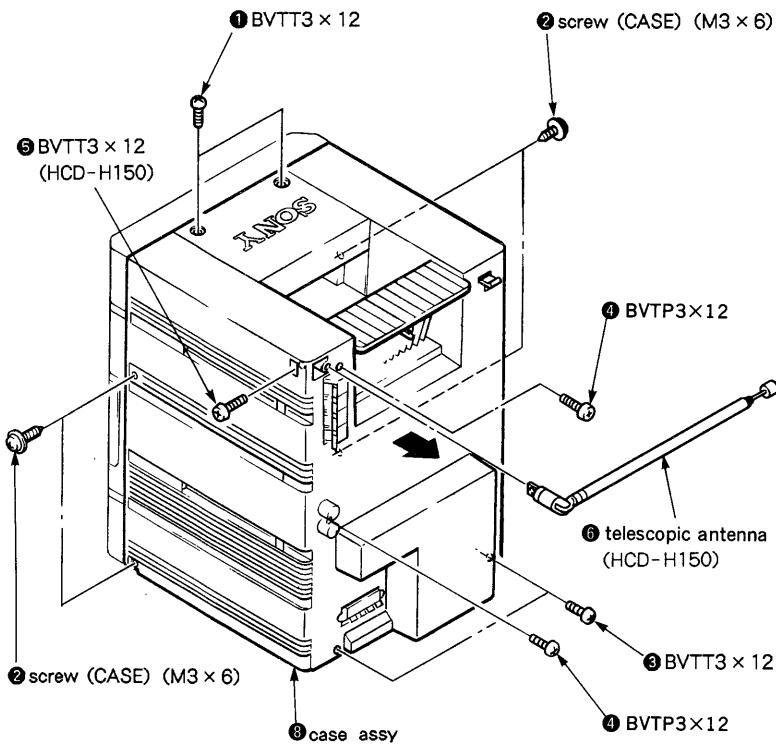
- 1 Press CD.
- 2 Press **■** of the CD player.
- 3 Insert a tape in deck B.
- 4 Depress **●**. **△** is depressed at the same time.
- 5 Recording starts.

**To stop howling (acoustic feedback)**  
Placing the microphone too close to the speakers may cause howling. Move the microphone away from the speakers or change the direction it faces.

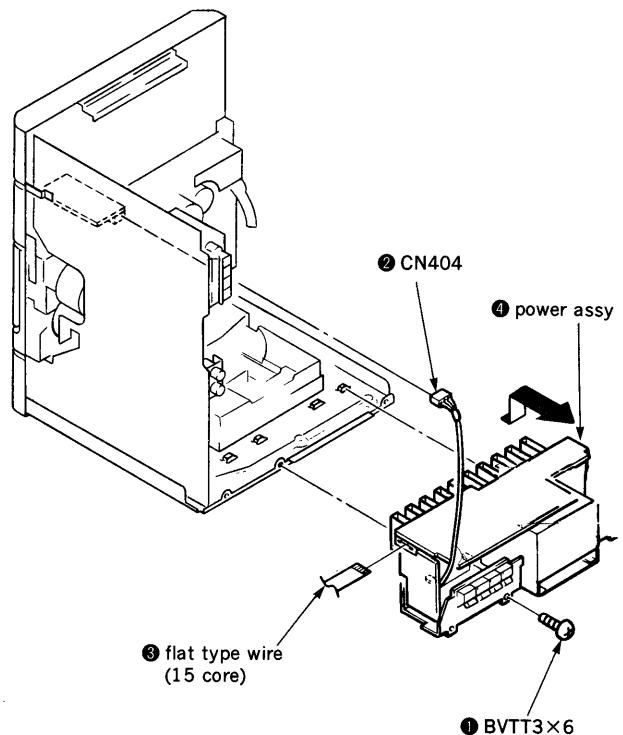
## SECTION 3 DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

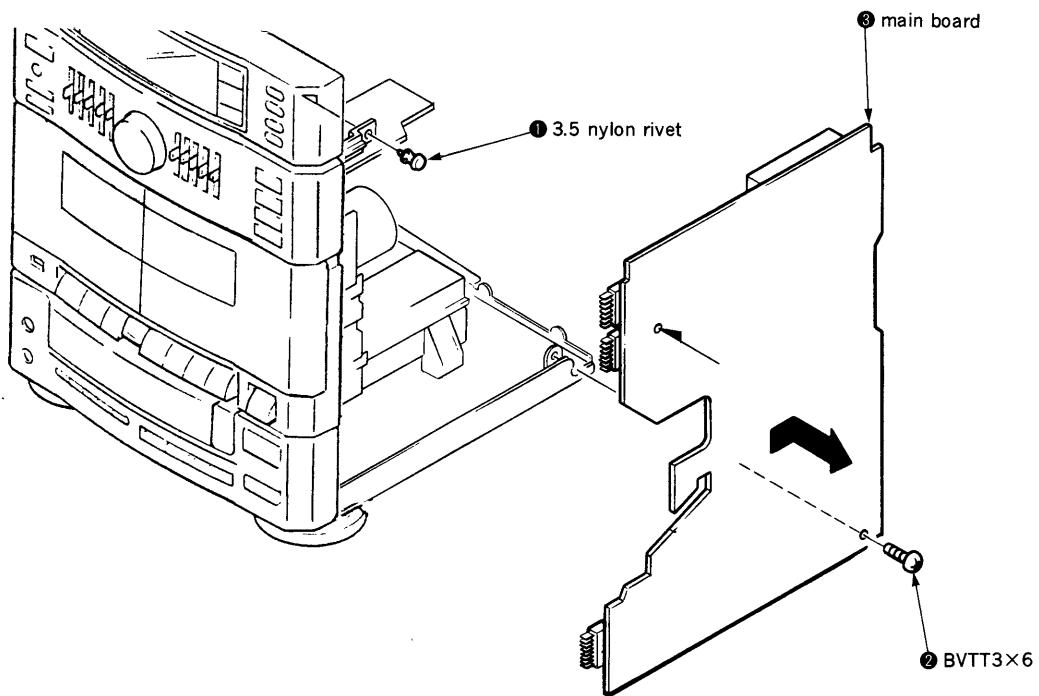
### 3-1. CASE ASSY



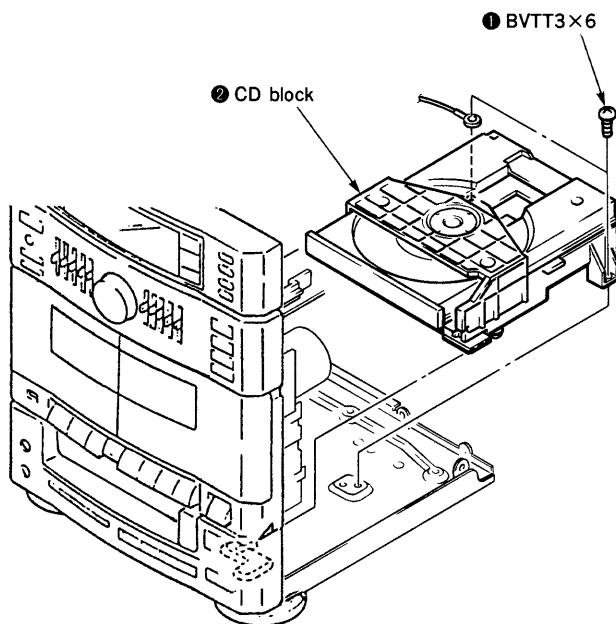
### 3-2. POWER ASSY



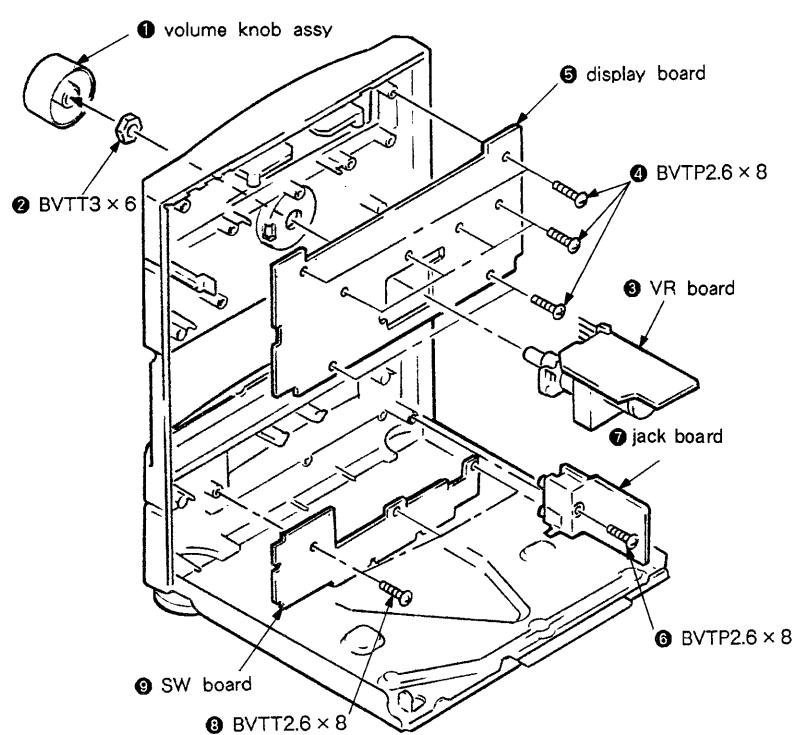
### 3-3. MAIN BOARD



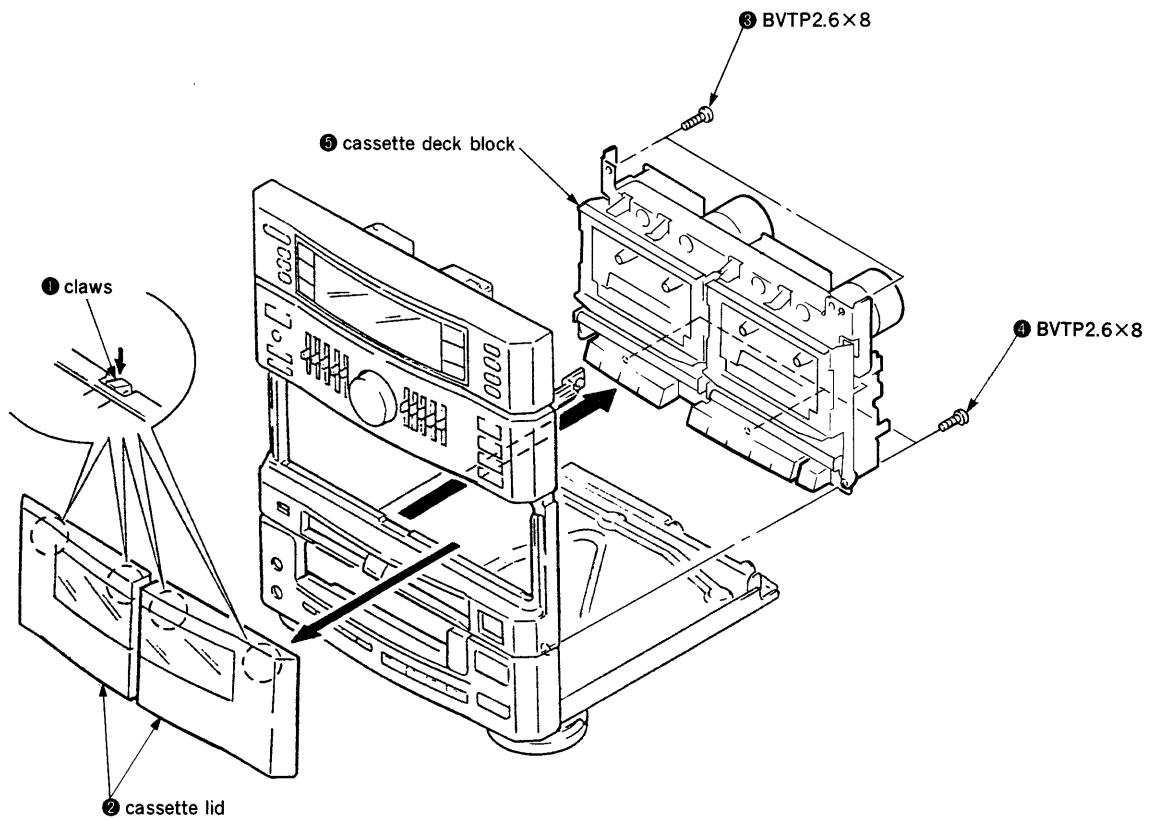
**3-4. CD BLOCK**



**3-6. VR, DISPLAY, JACK, SW BOARDS**



**3-5. CASSETTE DECK BLOCK**



## SECTION 4 MECHANICAL ADJUSTMENTS

### PRECAUTION

- Clean the following parts with a denatured alcohol moistened swab:
 

record/playback head	pinch roller
erase head	rubber belt
capstan	idler
- Demagnetize the record/playback head with a head demagnetizer.  
(Head demagnetizer do not approach for the erase head.)
- Do not use a magnetized screwdriver for the adjustment.
- After the adjustments, apply suitable locking compound to the parts adjusted.
- The adjustment should be performed with the rated power supply voltage unless otherwise noted.

### • Torque Measurement

	Torque meter	Meter reading
Forward	CQ-102C	35 to 60 g·cm (0.49 to 0.83 oz·inch)
REV	RB	
Forward back tension	CQ-201C	2.5 to 4.5 g·cm (0.035 to 0.062 oz·inch)
REV	RB	
FF	CQ-102C	75 to 150 g·cm (1.04 to 2.08 oz·inch)
REW		

#### Note:

G : Germany model      EE : East European model  
 JE : TOURIST model      EA : Saudi Arabia model  
 IT : Italian model      AUS : Austrian model  
 CND : Canadian model

### • Timer Test Mode

When BAND, SHIFT and PRESET/TIMER+ buttons are pressed at the same time the following time test operation is performed. After the operation, it becomes in the system reset mode. Take care that the frequency preset to the tuner is initialized.

- POWER OFF
- Timer set    Clock      AM10: 23  
                Timer ON    AM10: 24  
                Timer OFF    AM10: 31  
                Function    TUNER
- FL tube display (FLT501)
  - All light
  - for 2 seconds
  - "AM 10: 23"
  - for 0.5 second
  - "AM 10: 24"
  - for 0.5 second
  - "TUNER"
  - for 2 seconds
  - Last channel
  - for 1 second
  - "AM 00: 00" flashing
- POWER ON
- Finish

## SECTION 5 ELECTRICAL ADJUSTMENTS

### DECK SECTION

- The adjustment should be performed in the publication.  
(Be sure to make playback adjustment at first.)
- The adjustment and measurement should be performed for both L-CH and R-CH.
- Switch position  
DOLBY NR switch : OFF

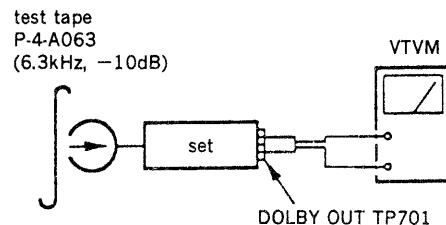
### • Test Tape

Tape	Contents	Use
P-4-A063	6.3kHz, -10dB	Head Azimuth Adjustment
WS-48A	3kHz, 0dB	Tape Speed Adjustment
P-4-L300	315Hz, 0dB	Playback Level Adjustment

### Record/Playback Head Azimuth Adjustment

#### Procedure :

- Mode : playback    DECK A    DECK B



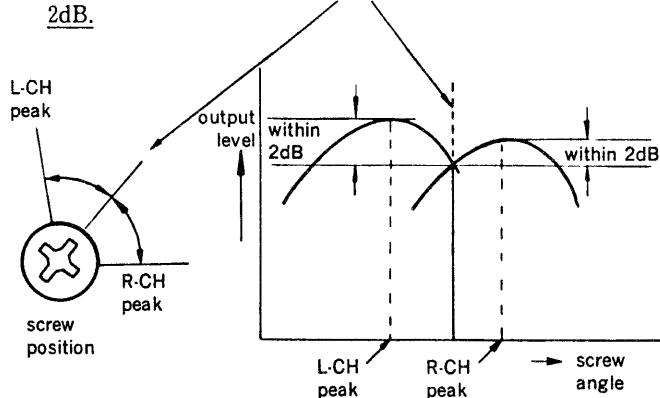
### • Preset Frequency in Resting

When pressing the system reset button (S701) of the rear side of the unit, the following frequency is preset to the tuner part. When the system reset is performed in repairing, be sure to return to the frequency set by the user.

FM	US, Canadian model MW tuning interval : 10k (9k)		AEP, UK, G, EE, model ( ) : IT model	
	AM	MW	LW	
A1 87.5MHz	A6 530(531)kHz	A6 531(522)kHz	B1 153(144)kHz	
A2 88.0MHz	A7 620(621)kHz	A7 603kHz	B2 162kHz	
A3 98.0MHz	A8 1050(1053)kHz	A8 999kHz	B3 216kHz	
A4 106.0MHz	A9 1490(1485)kHz	A9 1404kHz	B4 270kHz	
A5 108.0MHz	A10 1710kHz	A10 1602(1611)kHz	B5 279(288)kHz	

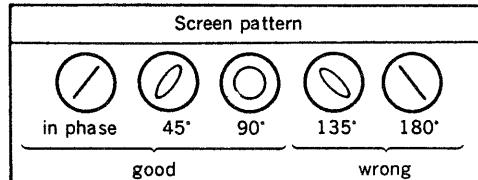
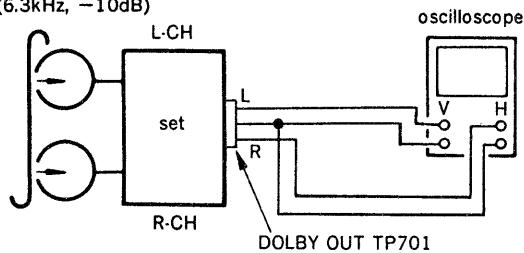
FM	E, EA, AUS, JE model MW tuning interval : 9k (10k)		
	MW	SW	
A1 87.5MHz	A6 531(530)kHz	B1 5.95MHz	
A2 88.0MHz	A7 603(620)kHz	B2 7.00MHz	
A3 98.0MHz	A8 999(1050)kHz	B3 12.00MHz	
A4 106.0MHz	A9 1404(1490)kHz	B4 17.00MHz	
A5 108.0MHz	A10 1602(1710)kHz	B5 17.90MHz	

2. Turn the adjustment screw for the maximum output levels. If these levels do not match, turn the adjustment screw until both of output levels match together within 2dB.



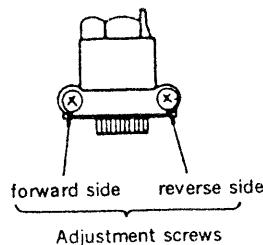
3. Playback Mode

test tape  
P-4-A063  
(6.3kHz, -10dB)



4. Change the review playback mode and repeat the steps 1 to 3.  
5. After the adjustment, lock the adjustment screw with suitable locking compound.

**Adjustment Location :**



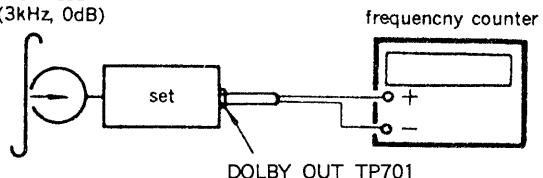
**Tape Speed Adjustment** **DECK A** **DECK B**

**Procedure :**

- Perform high speed adjustment before normal speed adjustment.

Mode : playback

test tape  
WS-48A  
(3kHz, 0dB)

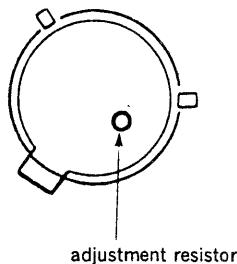


Speed checker	Digital frequency counter
± 1 %	2,970 to 3,030Hz

Frequency difference between the begining and the end of the tape should be within 1% (30Hz).

**Adjustment Location :**

motor  
deck A: M1  
deck B: M2

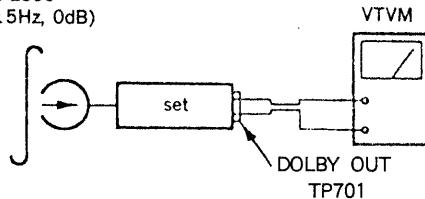


**Playback Level Adjustment** **DECK A** **DECK B**

**Procedure :**

Mode : playback

test tape  
P-4-L300  
(315Hz, 0dB)



Deck A is RV601 (L-CH), and RV651 (R-CH), deck B is RV611 (L-CH), and RV661 (R-CH) so that adjustment within adjustment level as follows.

**Adjustment Level :**

DOLBY OUT level :  $-5.7 \pm 0.5$  dBs

Level Difference between Channels : within 1dB

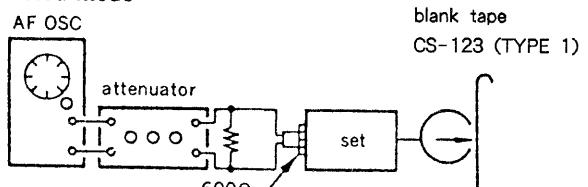
Confirm the DOLBY OUT level does not change in playback mode while changing the mode from playback to stop several times.

**Adjustment Location :** main board

**Record Level Adjustment** **DECK B**

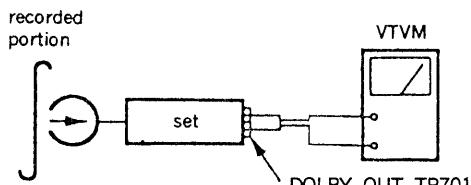
**Procedure :**

1. record mode



J701 (EXCEPT : AEP, EE, G, IT)  
The input which is  $-5.7$  dBs  
when monitoring REC of TP701.

2. playback mode



Confirm playback the signal recorded in step 1 become adjustment level as follows.

If these levels do not adjustment level, adjustment the RV721 (L-CH) and RV722 (R-CH) to repeat step 1 and 2.

#### Adjustment Level :

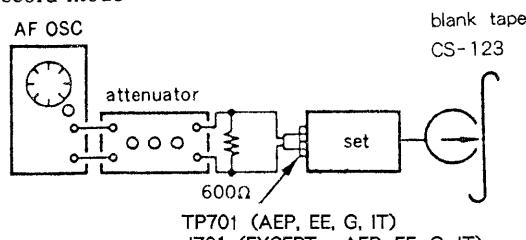
DOLBY OUT level :  $-25.7 \pm 1.0$  dBs

**Adjustment Location :** main board

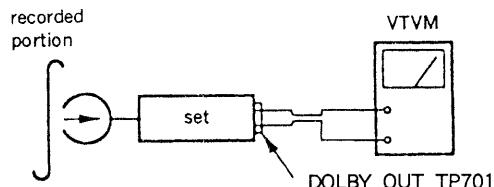
#### Record Bias Adjustment DECK B

##### Procedure :

1. record mode



2. playback mode



Confirm playback the signal recorded in step become adjustment level as follows.

If these levels do not adjustment level, adjustment the RV701 (L-CH) and RV751 (R-CH) to repeat step 1 and 2.

#### Adjustment Level :

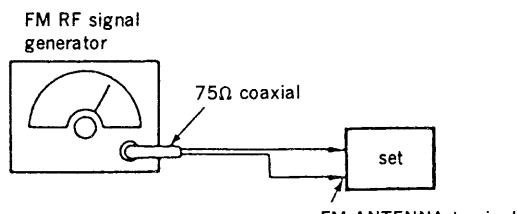
DOLBY OUT level :  $-25.7 \pm 1.0$  dBs

**Adjustment Location :** main board

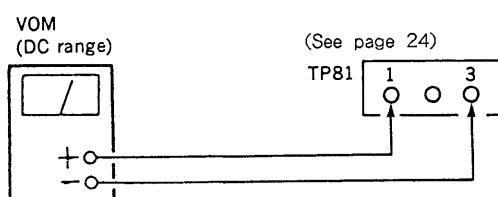
#### TUNER SECTION

#### FM SECTION ADJUSTMENTS

##### Setting :



Carrier frequency : 98MHz (60dB $\mu$  : 1mV)  
Modulation : 1kHz, 75kHz deviation (EXCEPT : G, IT)  
1kHz, 40kHz deviation (G, IT)



#### FM Discriminator Alignment (NULL Check)

Band : FM

##### Procedure :

1. Supply a  $60dB\mu$  (1mV) 98MHz signal from the ANTENNA terminal.
2. Tune the to 98MHz.
3. Adjust IFT82 for 0V reading on the VOM.

**Note :** FM tuned indication lighting level adjustment should be made after FM discriminator alignment.

#### FM Tuned Indication Lighting Level Adjustment

Band : FM

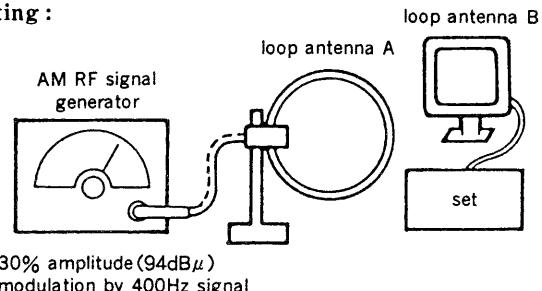
##### Procedure :

1. Supply a  $23 \pm 2dB\mu$  ( $14.1 \pm 1.2\mu$  V) (EXCEPT : G, IT),  $20 \pm 2dB\mu$  ( $10 \pm 1.2\mu$  V) (G, IT) 98MHz signal from the ANTENNA terminal.
2. Tune the set to 98MHz.
3. Adjust RV81 so that the TUNED light up.

**Adjustment Location :** main board (See page 24)

#### AM SECTION ADJUSTMENTS

##### Setting :



#### MW (AM) Tuned Indication Lighting Level Adjustment

Band : MW or AM

##### Procedure :

1. Set loop antenna A so that the loop antenna B input level become  $55dB\mu \pm 4dB\mu$  (0.36~0.89mV).
2. Tuned the set to 1,404kHz (EXCEPT : US, CND), 1,490kHz (US, CND).
3. Adjust the RV82 so that the TUNED light up.

#### SW OSC Voltage Adjustment

(E, Saudi Arabia, Australian, JE model)

Band : SW

##### Procedure :

1. Connect the VOM to TP (OSC).
2. Tune the set to 5.95MHz.
3. Adjust T2 for 0.9 to 1.1V reading on the VOM.
4. Tune the set to 17.90MHz.
5. Adjust CT22 for 8.3 to 8.7V reading on the VOM.

#### SW Tracking Adjustment

(E, Saudi Arabia, Australian, JE model)

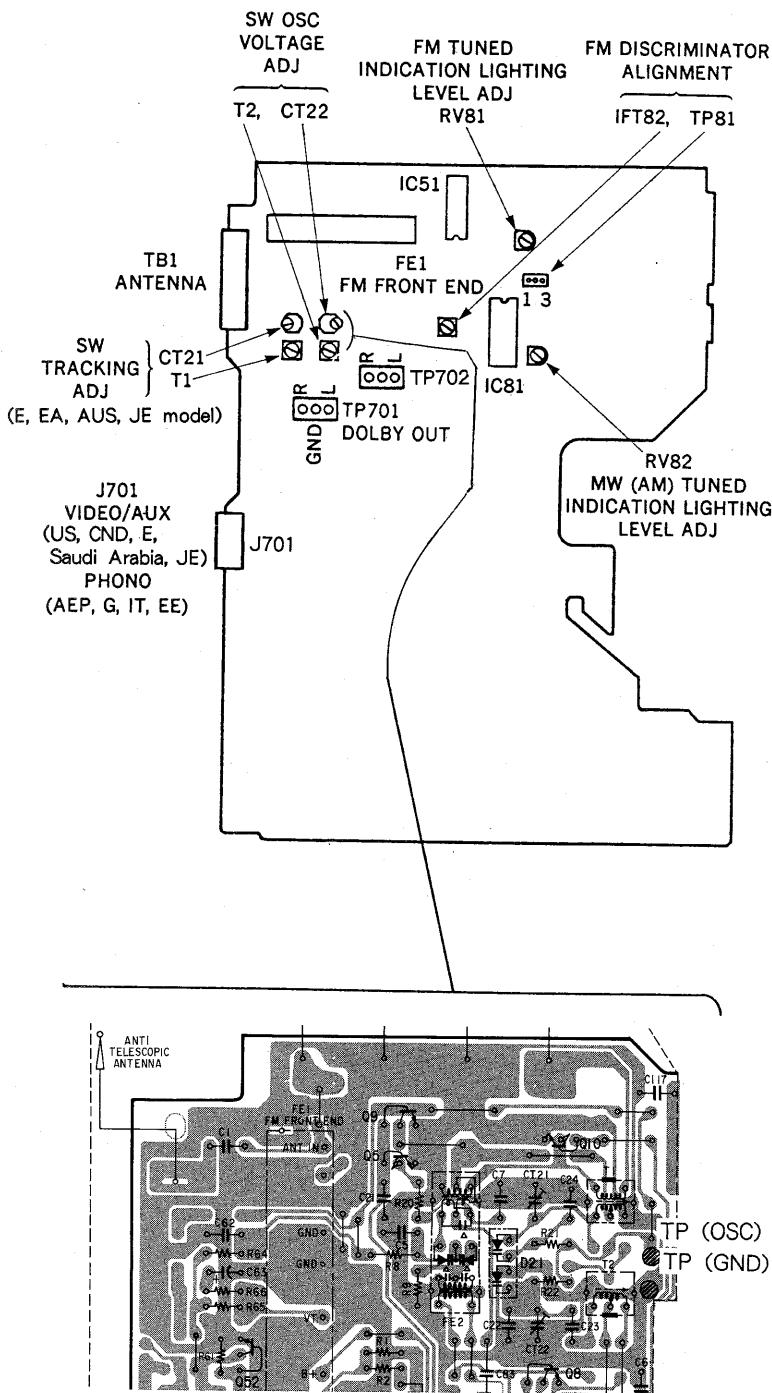
Band : SW

##### Procedure :

1. Connect the VOM to speaker terminal.
2. Adjust for a maximum reading on VTVM.

Signal generator and set frequency	Adjustment part
7.0MHz	T1
17.0MHz	CT21

**Adjustment Location:** main board —component side—

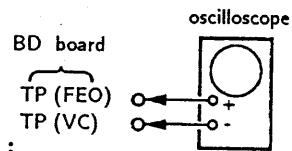


**CD SECTION**

**Note:**

1. CD Block basically constructed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use the oscilloscope with more than  $10M\Omega$  impedance.
4. Clean an object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.

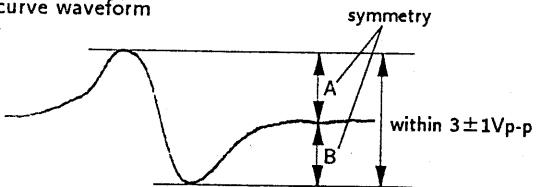
## S Curve Check



### Procedure :

1. Connect oscilloscope to test point TP (FEO) on BD board.
2. Connect between test point TP (FES) and TP (VC) by lead wire.
3. Turned Power switch on and actuate the focus serch. (actuate the focus serch when disc table is moving in and out.)
4. Check the oscilloscope waveform (S curve) is symmetrical between A and B. And confirm peak to peak level within  $3 \pm 1$  Vp-p.

## S curve waveform



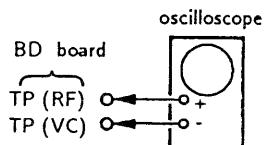
5. After check, remove the lead wire connected in step 2.

**Note:** • Try to measure several times to make sure that the ratio of A : B or B : A is more than

- Take sweep time as long as possible and light up the brightness to obtain best waveform

**Note:** JE : Tourist model  
 CND : Canadian model  
 EE : East European model  
 EA : Saudi Arabia model  
 AUS : Australian model  
 G : Germany model  
 IT : Italian model

## RF Level Check

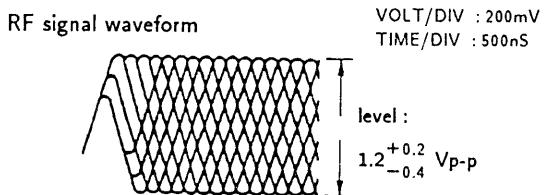


### Procedure :

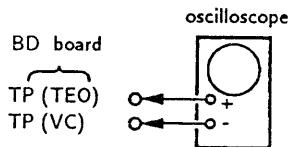
1. Connect oscilloscope to test point TP (RF) on BD board.
2. Turn Power switch on.
3. Put disc (YEDS-18) in and playback.
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

### Note :

Clear RF signal waveform means that the shape “◇” can be clearly distinguished at the center of the waveform.



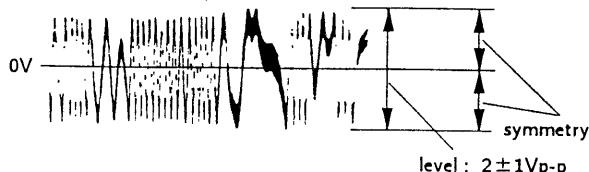
## E-F Balance Check



### Procedure :

1. Connect test point TP (ADJ) to ground and TP (TES) to TP (VC) with lead wire.
2. Connect oscilloscope to test point TP (TEO) on BD board.
3. Turn Power switch on.
4. Put disc (YEDS-18) in and playback.
5. Confirm that the oscilloscope waveform is symmetrical on the top and bottom in relation to 0V, and check this level.

### Traverse oscilloscope

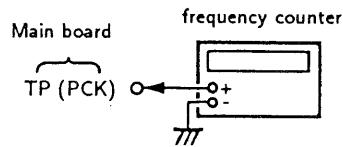


6. Remove the lead wire connected in step 1.

## RF PLL Free-run Frequency Check

### Procedure :

1. Connect frequency counter to test point (PCK) with lead wire.



2. Turn Power switch on.
3. Confirm that reading on frequency counter is 4.3218MHz.

## Focus/Tracking Gain

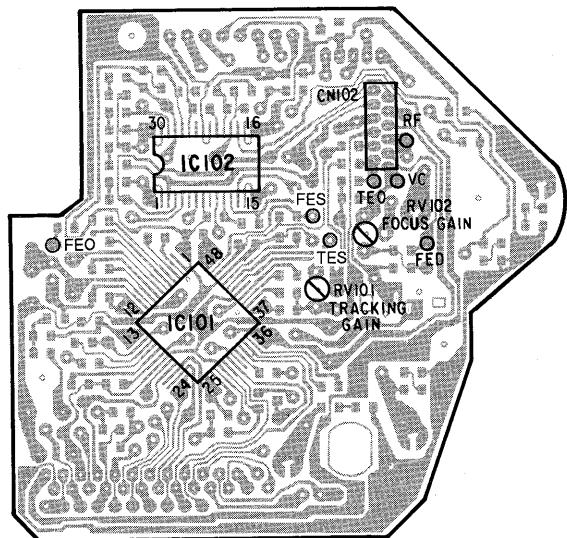
This gain has a margin, so even if it is slightly off. There is no problem.

Therefore, do not perform, this adjustment.

Please note that it should be fixed to mechanical center position when you moved and do not know original position.

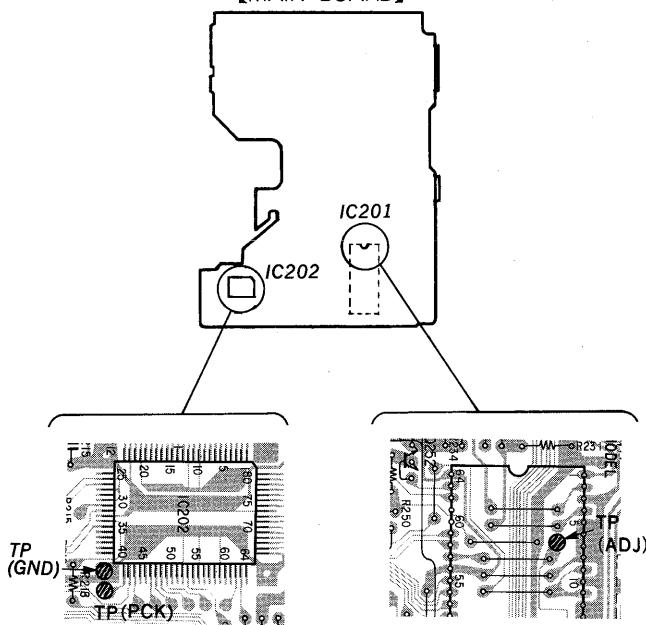
## SECTION 6 DIAGRAMS

**Adjustment Locations :**  
BD board — conductor side —



**main board — conductor side —**

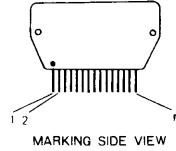
**[MAIN BOARD]**



### 6-1. SEMICONDUCTOR LEAD LAYOUTS

STK-4122MK2

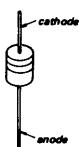
2SK246-GR3  
2SK246-Y



DTA114ES  
DTA144ES  
DTC114ES  
DTC143TS  
2SC2603-EF  
2SC2724-CD  
2SC3622A-LK



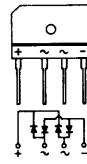
DTC114TS  
DTC144ES  
2SA1175-HFE



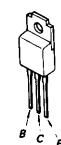
RBA-402



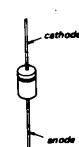
DTC144EK  
2SB1094-LK  
2SD2012



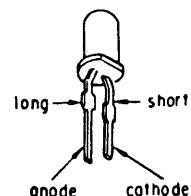
UZP-5.1BC



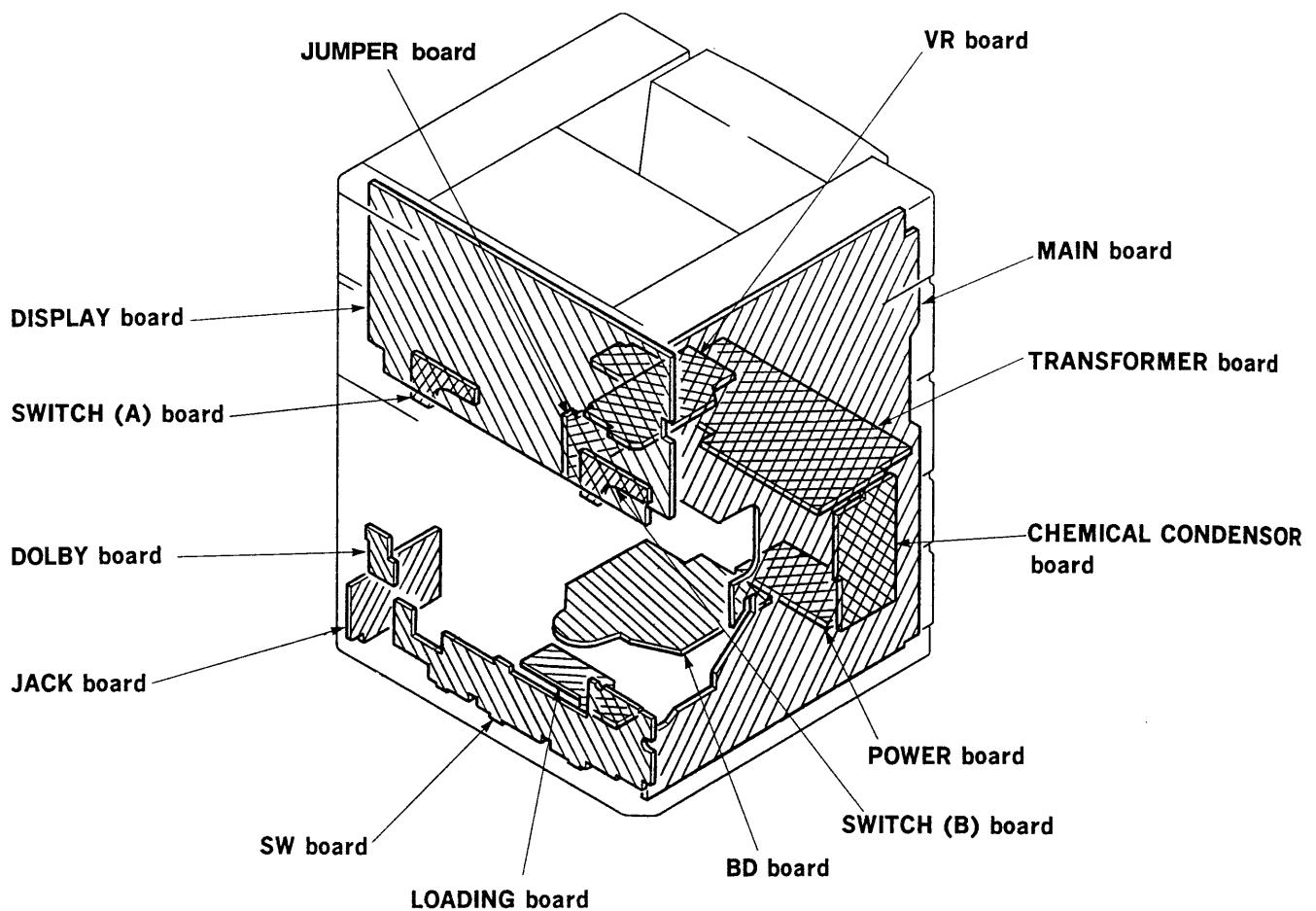
2SC3112-B  
2SD1387  
2SD1616A-K



SEL2810A



## 6-2. CIRCUIT BOARDS LOCATION





## • Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D21 (*1)	C-6	04 (*2)	D-4
D201	F-16	05 (*1)	B-5
D205	D-15	06 (*2)	B-9
D601	C-16	06 (*1)	E-6
D701	D-12	07 (*2)	D-10
D735	H-11	07 (*2)	D-10
D736	G-15	08 (*1)	D-6
D737	D-15	08 (*2)	D-10
D738	G-15	09 (*1)	B-5
D739	G-15	09 (*2)	B-9
D785	E-13	010 (*1)	B-6
D786	E-14	010 (*2)	B-10
D787	E-13	051 (*3)	D-4
D788	D-14	051 (*2)	D-8
D789	D-13	052 (*3)	A-4
D790	C-14	052 (*2)	D-6
D791	D-13	053 (*2)	D-7
D792	D-13	054 (*2)	C-7
D793	E-13	0101 (MD)	F-21
IC51 (*3)	E-4	0102	H-8
IC51 (*2)	E-8	0103	G-11
IC81	F-10	0201	E-15
IC101	E-21	0231	F-17
IC102	D-21	0232	E-17
IC201	D-17	0233	F-16
IC202	H-17	0234	E-16
IC221	G-17	0252	E-15
IC222	F-18	0253	E-16
IC223	F-17	0601	F-13
IC233	F-15	0603	C-16
IC601	B-15	0651	F-13
IC602	E-13	0721	B-17
IC621 (*2)	C-11	0722	B-16
IC661	B-17	0723	B-18
IC701	D-11	0731	F-12
IC702	D-12	0732	E-12
IC703	E-12	0735	H-11
IC704	C-13	0736	H-11
IC705	F-12	0738	H-9
IC706	I-10	0739	G-15
IC785	D-13	0740	G-15
IC999	H-16	0781	F-12
01 (*1)	A-5	0785	D-14
01 (*2)	D-9	0787	E-14
02 (*4)	D-9	0789	D-13
03 (*3)	E-6	0790	D-13
03 (*2)	E-10	0999	H-15
04 (*3)	D-6		

(\* 1) : Used on H150 ; E, EA, JE, AUS model.

(\* 2) : Used on H150 ; AEP, EE, G, IT/H500 model.

(\* 3) : Used on H150 ; E, EA, JE, US, CND, AUS model.

(\* 4) : Used on H150 ; G, IT model.

## Note on Mounting Diagram:

- : Parts extracted from the component side.
- : Parts extracted from the conductor side.
- : Indicates side identified with part number.
- : Through hole.
- : Pattern on the side which is seen.
- : Pattern of the rear side.

• EE : East European model

EA : Saudi Arabia model

JE : Tourist model

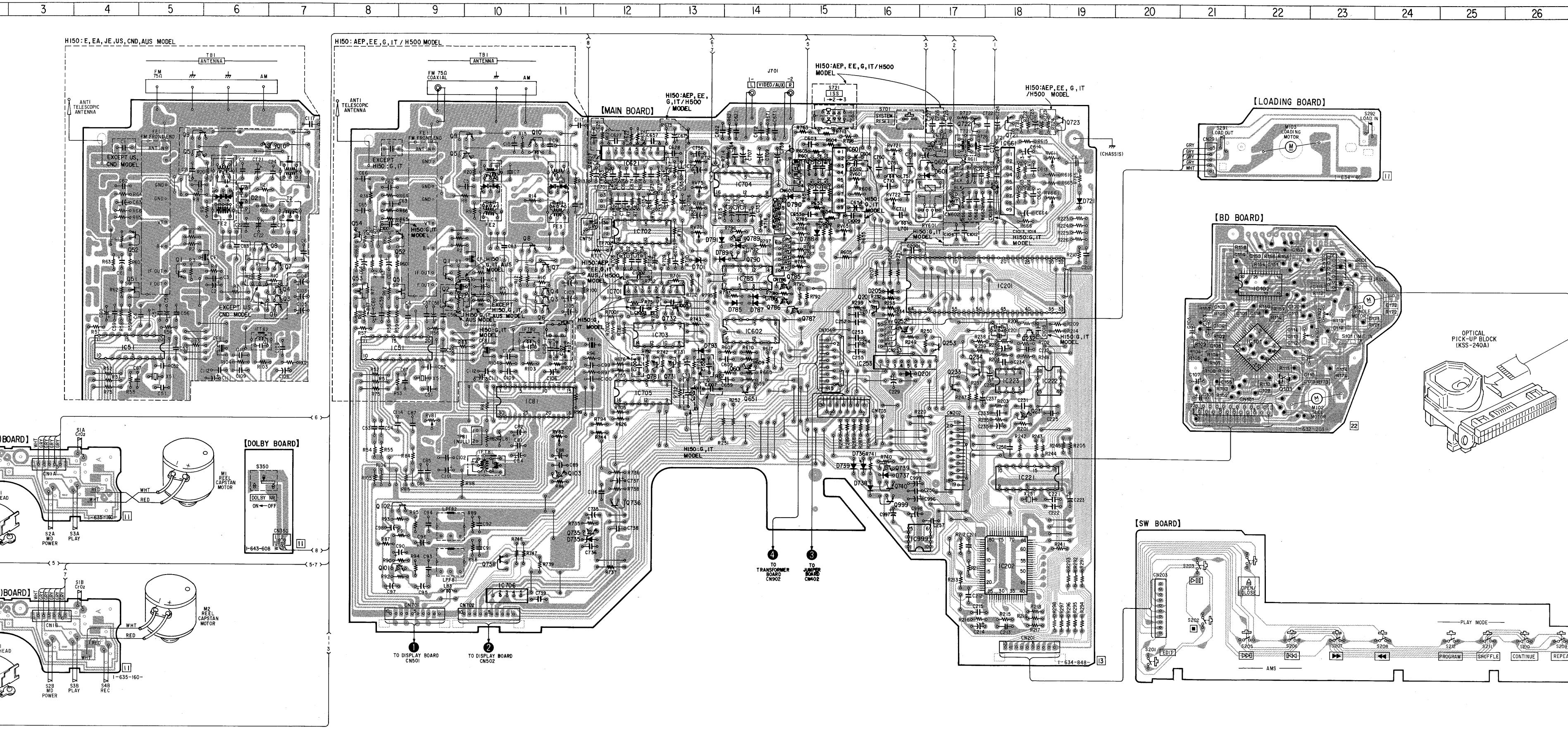
AUS : Australian model

IT : Italian model

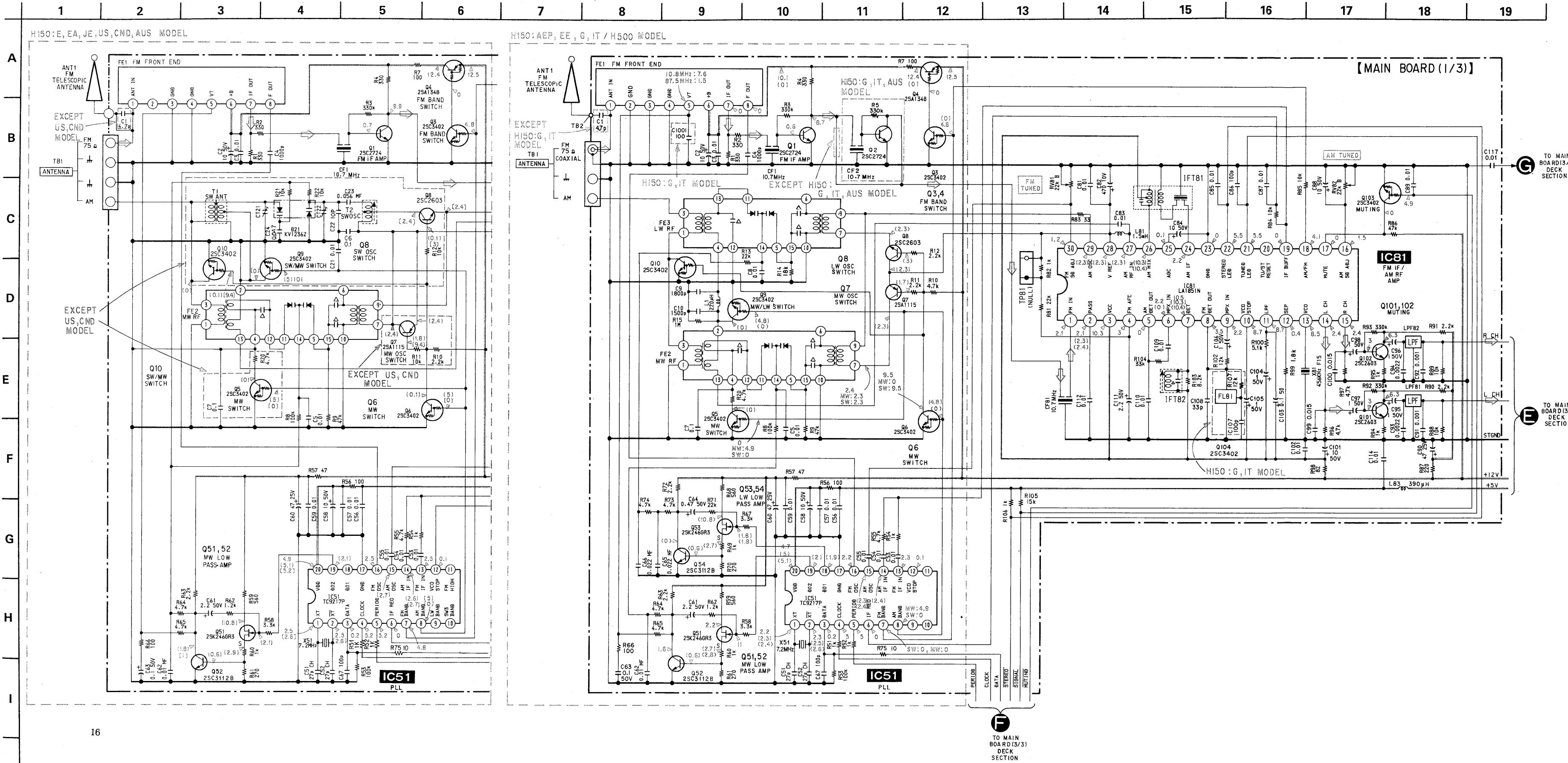
CND : Canadian model

G : Germany model

## 6-3. PRINTED WIRING BOARDS — Tuner /CD/Deck Section — • Refer to page 26 for Semiconductor Lead Layouts.



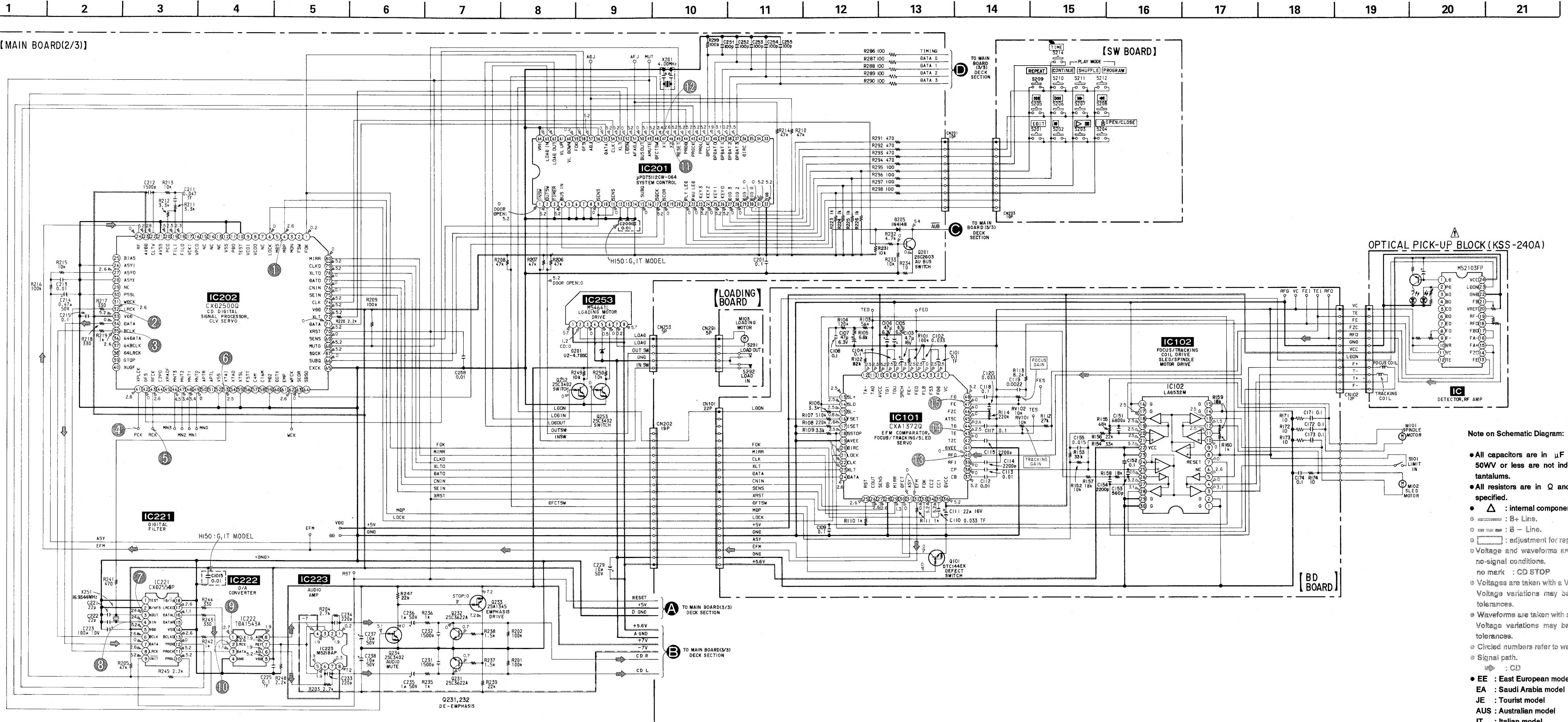
## 6-4. SCHEMATIC DIAGRAM—Tuner Section— • Refer to page 49 for IC Block Diagrams.



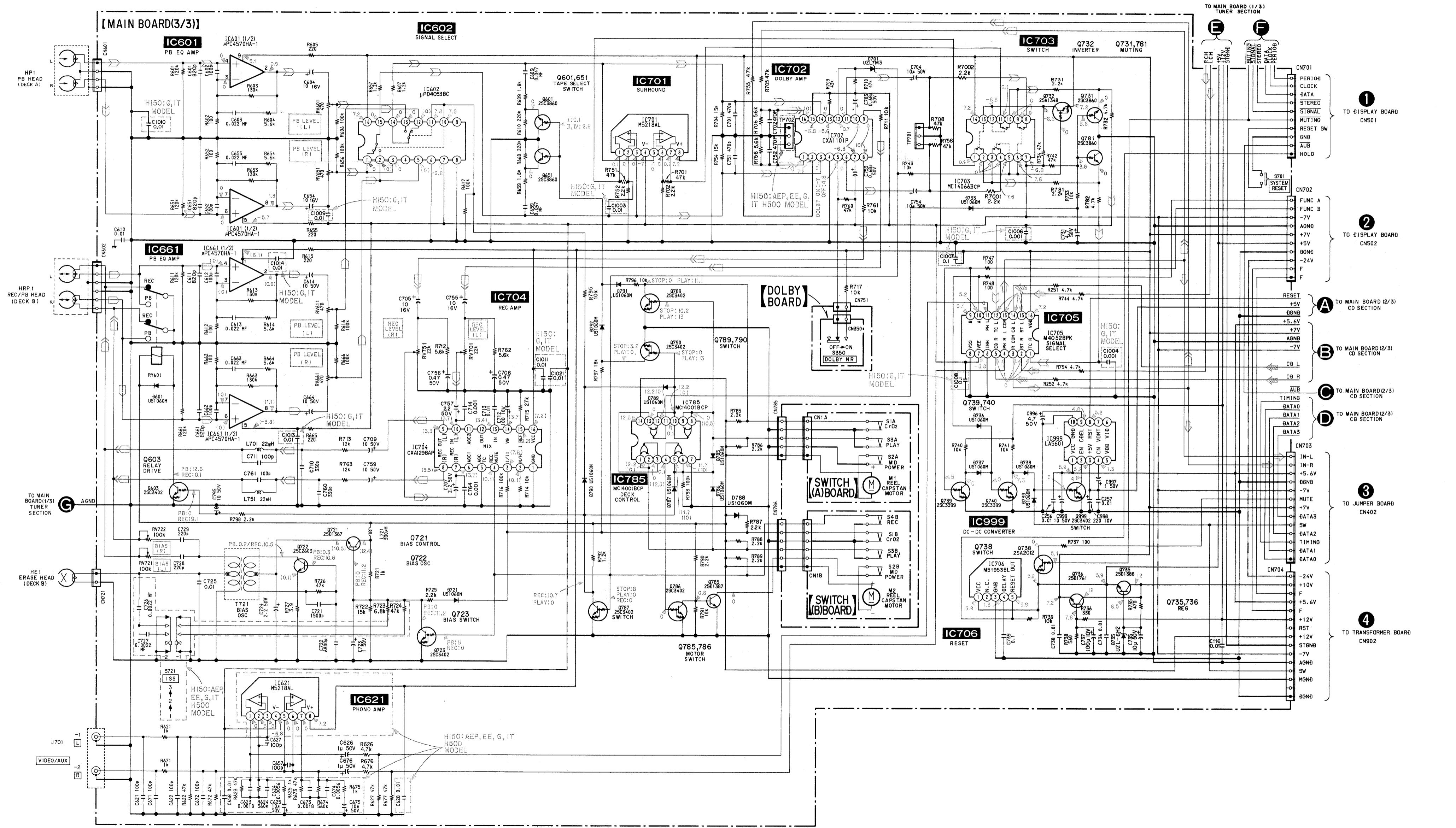
**Note on Schematic Diagram :**

- All capacitors are in  $\mu$ F unless otherwise noted. pF:  $\mu$ PF 50V or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and  $\frac{1}{4}$  W or less unless otherwise specified.
- $\square$  : B + Line.
- $\square$  : B - Line.
- $\square$  : adjustment for repair.
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- no mark : FM
- ( ) : MW
- > : LW
- ] : SW
- Voltages are taken with a VOM (input impedance 10 M $\Omega$ ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
- EE : East European model
- EA : Saudi Arabia model
- JE : Tourist model
- AUS : Australian model
- IT : Italian model
- CND : Canadian model
- G : Germany model

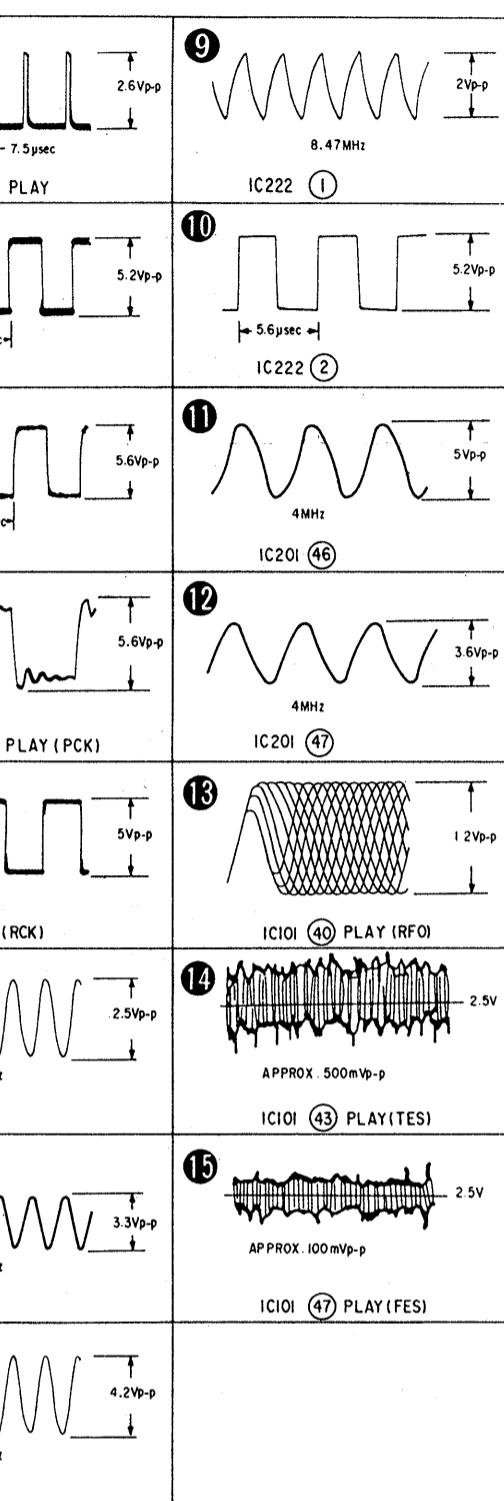
## 6-5. SCHEMATIC DIAGRAM—CD Section— • Refer to page 49 for IC Block Diagrams.



A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M



- Waveforms



### Note on Schematic

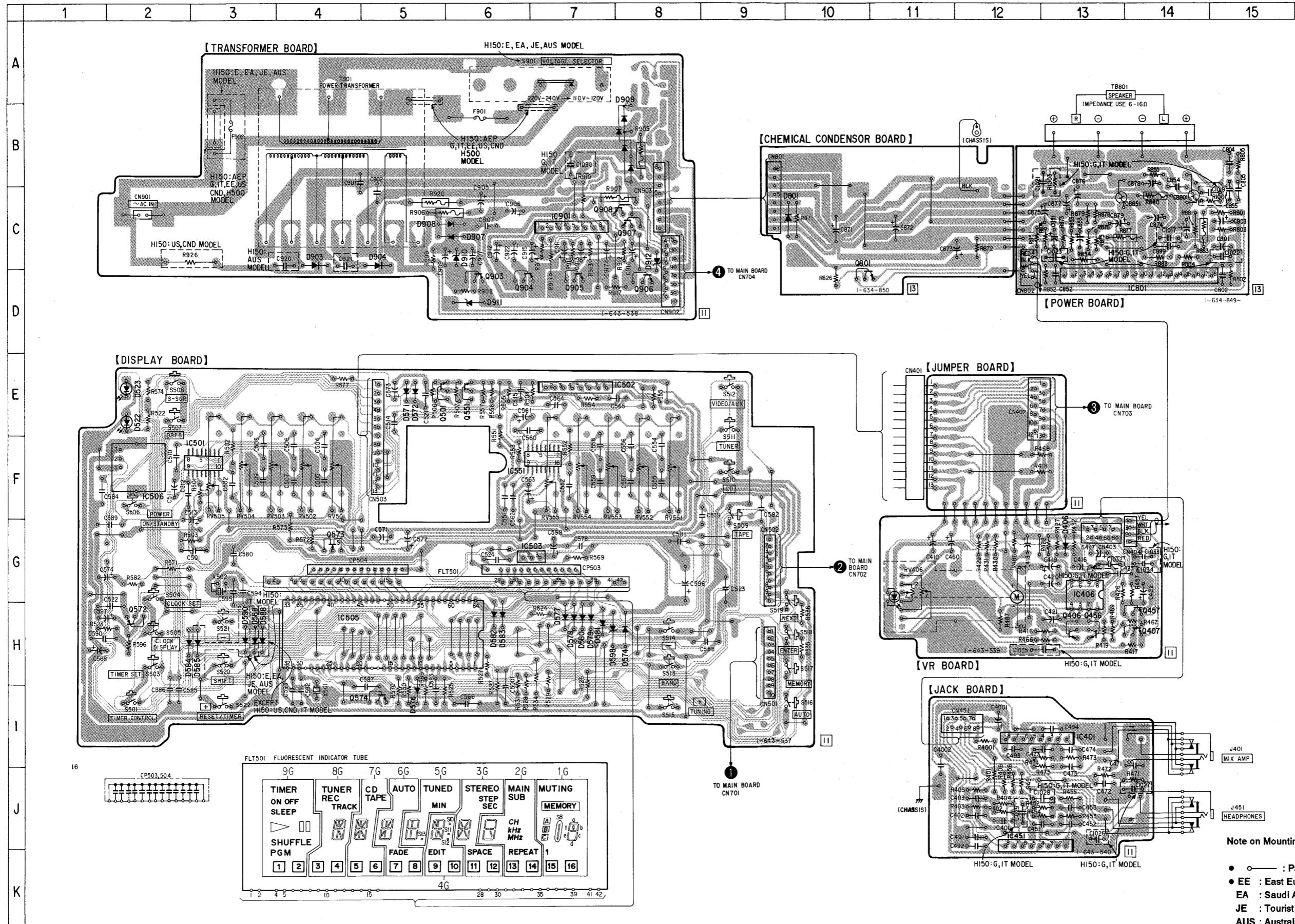
e in  $\mu$ F unless otherwise noted. pF:  $\mu\mu$ F  
are not indicated except for electrolytics and  
in  $\Omega$  and  $\frac{1}{4}$  W or less unless otherwise  
e,  
e.  
ment for repair.  
reforms are dc with respect to ground under  
ns.  
ER ON  
Y (DECK A)  
en with a VOM (input impedance 10 M $\Omega$ ).  
is may be noted due to normal production  
CK A)  
CK B)  
orean model  
ria model  
del  
model  
del  
model  
odel



## 6-8. PRINTED WIRING BOARDS

## —Power/Amplifier/Display Section—

•Refer to page 26 for Semiconductor Lead Layouts.

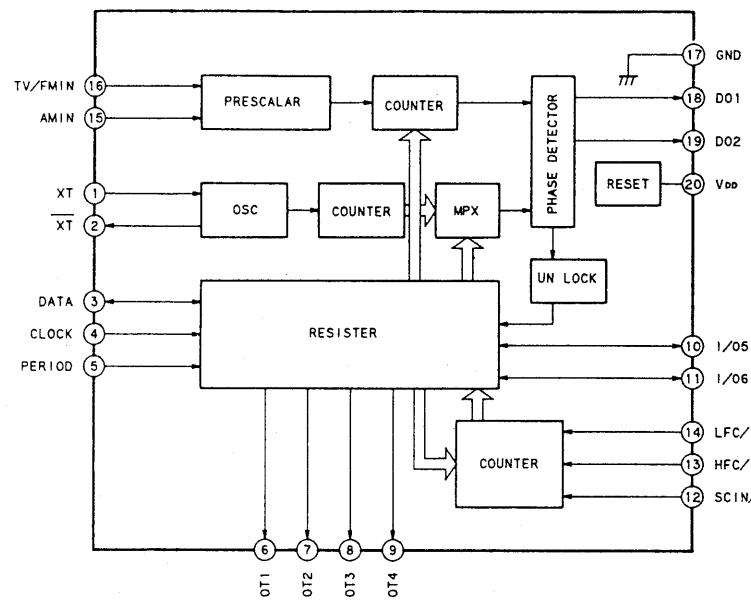


## Note on Mounting Diagram:

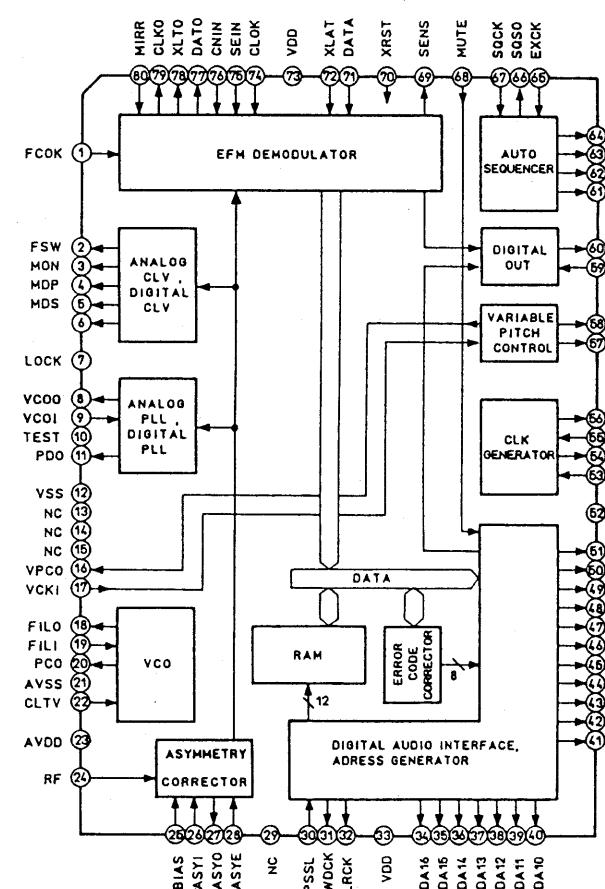
- : Parts extracted from the component side.
- EE : East European model
- EA : Saudi Arabia model
- JE : Tourist model
- AUS : Australian model
- IT : Italian model
- CND : Canadian model
- G : Germany model

- IC Block Diagrams

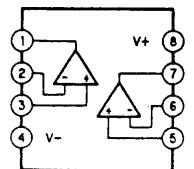
• IC51 TC9217P



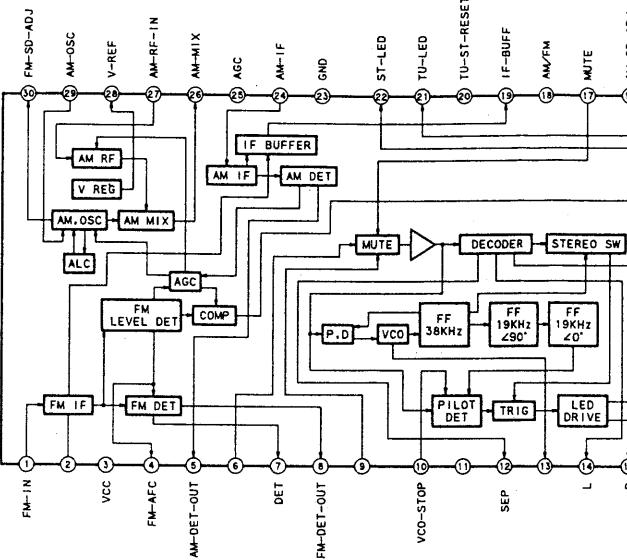
• IC202 CXD2500Q



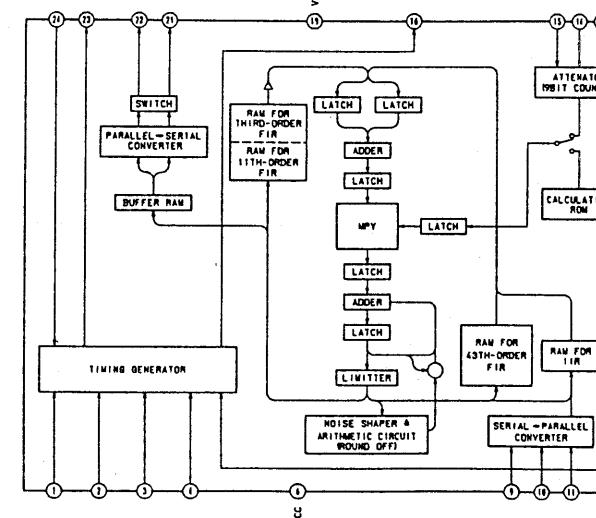
● IC223 M5218AP



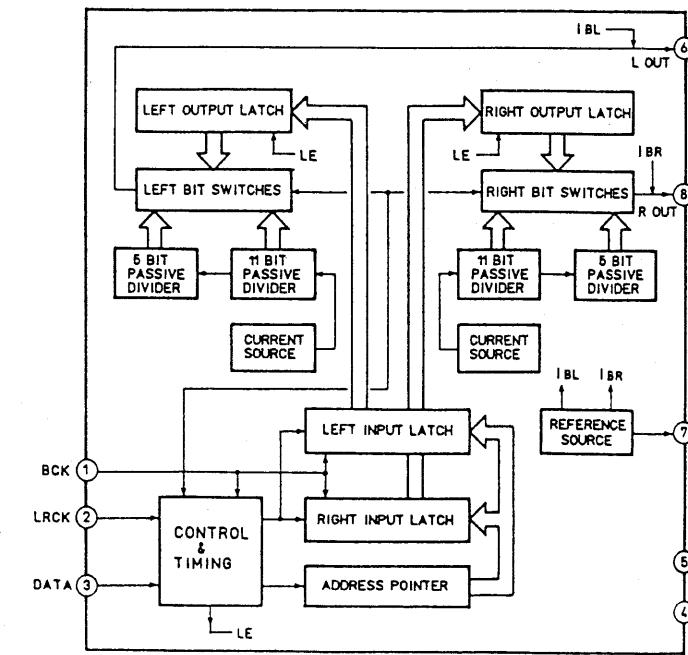
• IC81 LA185



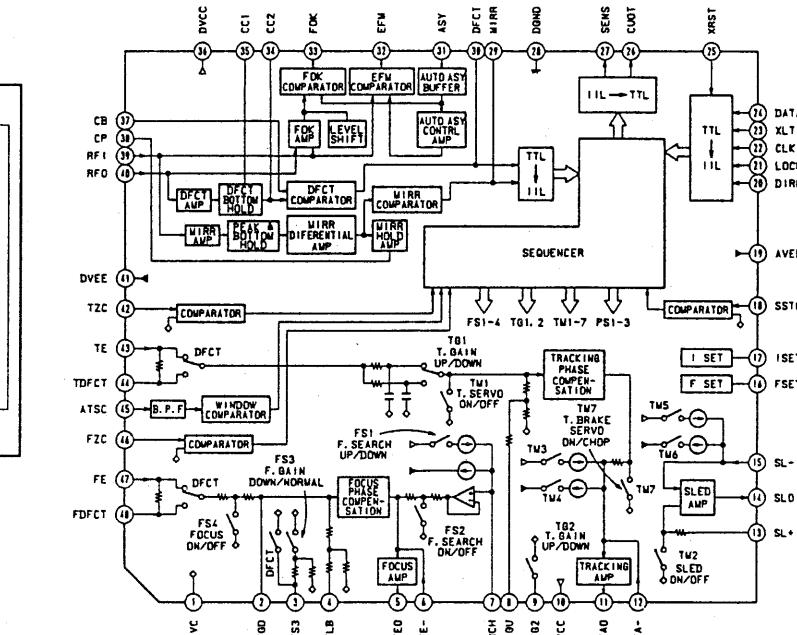
• IC221 CXD255



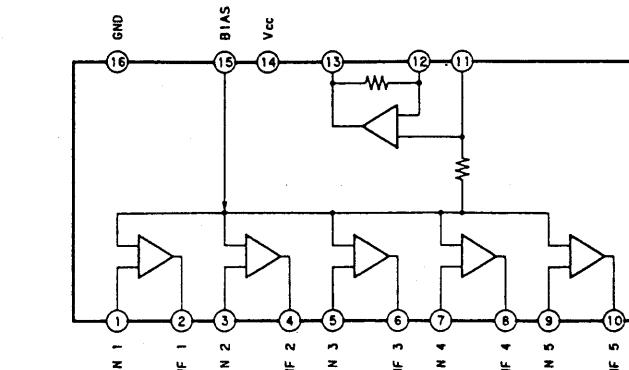
• IC222 TDA154



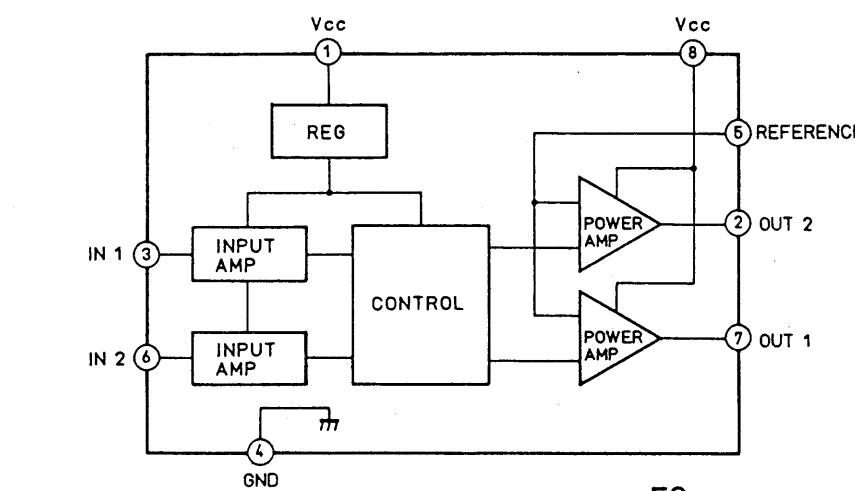
• IC101 CXA1372



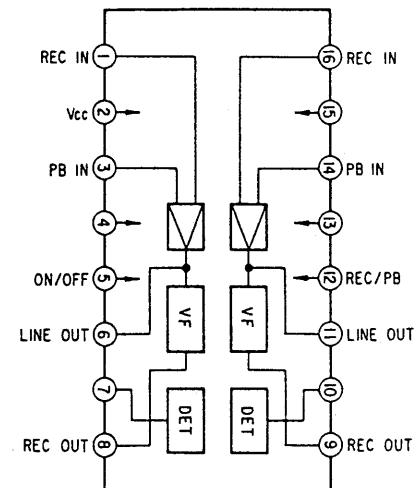
• IC501, IC551 M5226I



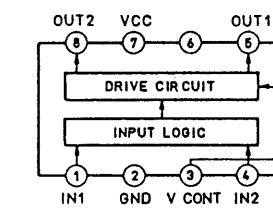
• IC253 M54641



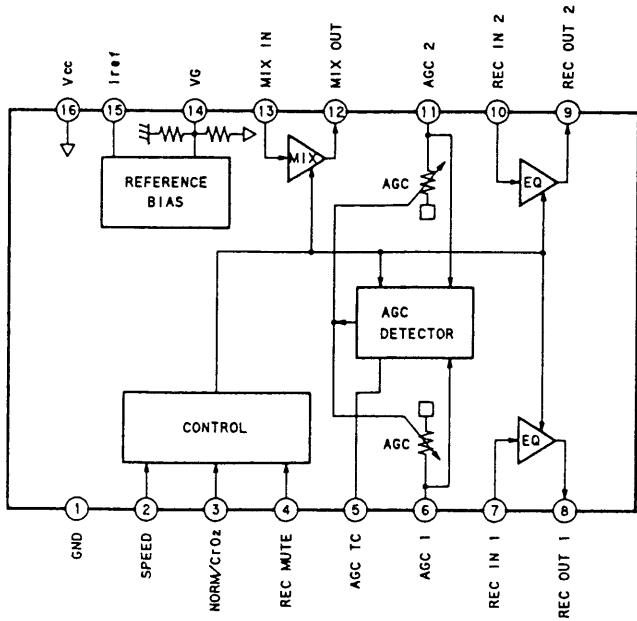
• IC702 CXA1101P



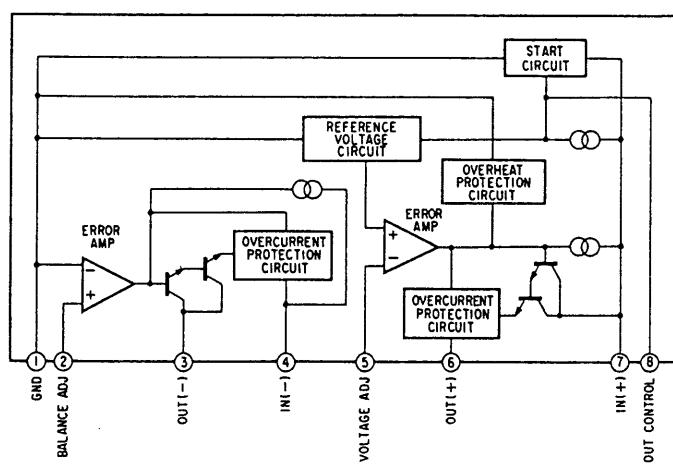
• IC406 LB1639



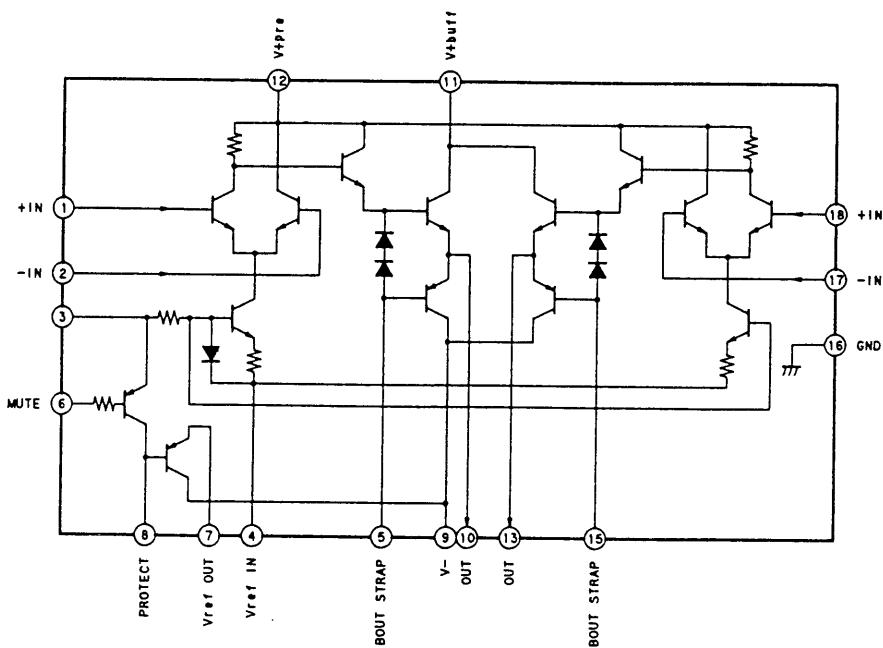
• IC704 CXA1298AP



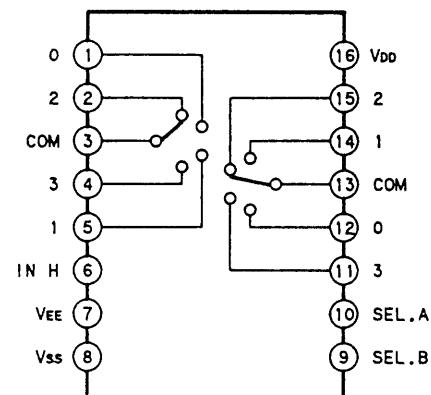
• IC901 M5230L



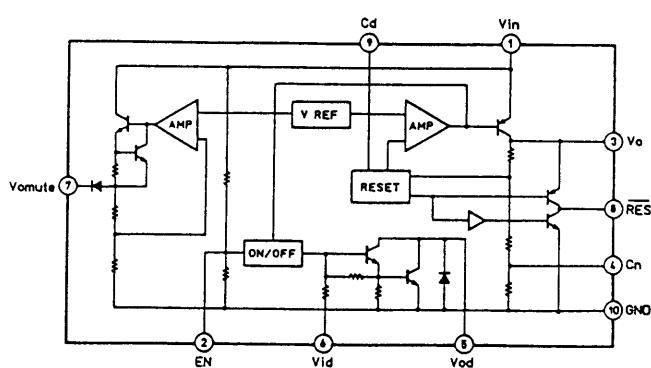
• IC801 STK-4122MK2



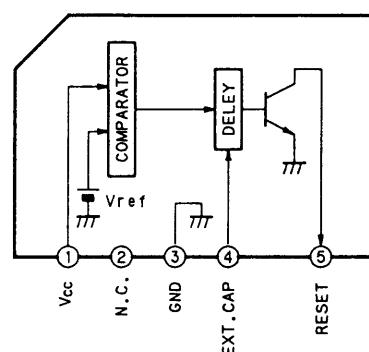
• IC705 M4052BPK



• IC999 LA5601



• IC706 M51953BL





## 6-9. IC PIN DESCRIPTIONS

• IC505 Display Control ( $\mu$ PD75212ACW-273)

Pin No.	Pin Name	I/O	ACTIVE	Description	Hold
1	S3	O	H	Segment, keyscan output terminals	Low
2	S2				
3	S1				
4	S0				
5	INT4	I	L	HOLD input	input
6	SCK	O	—	CLOCK (TC9217P T-BUS)	
7	SO	I/O	—	DATA (TC9217P T-BUS)	
8	PO3	I	L	SIGNAL input	
9	INT0	I	L	AUDIO-BUS input	input
10	INT1	I	Down	CD display data, timing	
11	P12	I	L	Remote control input	
12	P13	I	L	STEREO input	
13	P20	I	—	CD display data	input
14	P21				
15	P22				
16	P23				
17	P30	I	L	DUAL 2 input	input
18	P31	I	L	DUAL 1 input	
19	P32	O	L	POWER port	
20	P33	O	L	MUTING	Low
21	P60	I	H	Keyscan input	input
22	P61				
23	P62				
24	P63				
25	P40	O	—	FUNCTION A output	Low
26	P41	O	—	FUNCTION B output	
27	P42	O	H	AUDIO-BUS output	
28	P43	O	L	PERIOD (TC9217P T-BUS)	
29	PP0	—	—	Not used (open)	—
30	X1	—	—	Main system clock 4.19MHz	—
31	X2				—
32	V <sub>ss</sub>	—	—	GND terminal (0V)	—
33	XT1	—	—	Sub system clock 32.768kHz	—
34	XT2				—
35	P50	O	L	DBFB	Low
36	P51	O	L	SURROUND	
37	P52	O	L	Volume DOWN	
38	P53	O	L	Volume UP	
39	RESET	I	L	System reset input terminal	—
40	T0	O	H	Digit output	Low
41	T1				

Pin No.	Pin Name	I/O	ACTIVE	Description			Hold
42	T2	O	H	Digit output			Low
43	T3						
44	T4						
45	T5						
46	T6						
47	T7						
48	T8						
49	T9	O	—	Not used (open)			Low
50	S15	O	H	Segment output			Low
51	S14						
52	S13						
53	S12						
54	S11	O	H	Segment output, specification distinction diode output			Low
55	S10						—
56	V <sub>LOAD</sub>	—	—	Pull-down resistor connect terminal of FIP driver			—
57	V <sub>PRE</sub>	—	—	Power supply terminal of FIP driver output buffer			—
58	S9	O	H	Segment output			Low
59	S8						
60	S7						
61	S6						
62	S5	O	H	Segment, keyscan output terminal			Low
63	S4						—
64	V <sub>DD</sub>	—	—	Power supply terminal (5V)			—

#### [KEY, DIODE MATRIX]

	Key						Diode	
	S5	S4	S3	S2	S1	S0	S10	S11
S60	CLOCK	TIMER CONTROL	VIDEO	NEXT	STATION UP	STATION DOWN	TIMER FUNCTION	ST TYPE
S61	DISPLAY	—	TUNER	AUTO/MANUAL	SHIFT	ENTER	VIDEO/PHONO	—
S62	POWER	TIMER SET	CD	SURROUND	BAND	MEMORY	IF+50kHz	ST TYPE
S63	—	—	TAPE	DBFB	TUNING UP	TUNING DOWN	IF-50kHz	—

- 1) Pressing the key twice is not allowed. (First pressing is preceded)
- 2) The remote control precedes the input with the key.
- 3) Input the diode in resetting and in releasing HOLD.

## • IC201 CD Controller (μPD75112CW-064)

Pin No.	Pin Name	I/O	Description
1	INSW	I	Disk tray clamp-end input
2	OUTSW	I	Disk tray open-end input
3	(TIMER)	I	Timer start input
4	BSIN	I	Audio bus input
5	Not Used	I	GND
6	Not Used	I	GND
7	Not Used	I	GND
8	Not Used	I	GND
9	SENS	I	SENS input, and the state input of every kind from CXD2500Q and CXA1372Q
10	Not Used	I	GND
11	SENS	I	SENS input, and the state input of every kind from CXD2500Q and CXA1372Q
12	Not Used	I	GND
13	Not Used	I	GND
14	Not Used	I	GND
15	SUBQ	I	Q data serial input from CXD2500Q
16	Not Used	O	OPEN
17	SQCLK	O	Sub-code Q data read-in clock output for CXD2500Q
18	SCOR	I	Sub-code synchro S0 and S1 detect input
19	Not Used	O	OPEN
20	Not Used	O	OPEN
21	PLAYL	O	Play LED ON/OFF output
22	PAUSL	O	Pause LED ON/OFF output
23	KEY3	I	Key data input
24	KEY2	I	Key data input
25	KEY1	I	Key data input
26	KEY0	I	Key data input
27	DG3	O	Key-scan digit output
28	DG2	O	Key-scan digit output
29	DG1	O	Key-scan digit output
30	DG0	O	Key-scan digit output
31	Not Used	I	+5V
32	VDD	I	+5V
33	Not Used	O	OPEN
34	Not Used	O	OPEN
35	Not Used	O	OPEN
36	Not Used	O	On time 1 track jump, tracking drive is inversed output for CXA1372Q
37	DPDAT3	O	Display data output for tuner amp micon
38	DPDAT2	O	Display data output for tuner amp micon
39	DPDAT1	O	Display data output for tuner amp micon
40	DPDAT0	O	Display data output for tuner amp micon
41	DPCLK	O	Display data transmission clock output for tuner amp micon
42	PRGL	O	Serial data latch pulse output for digital filter CXD2551P
43	PRGCK	O	Serial clock output for digital filter CXD2551P
44	PRGD	O	Serial clock output for digital filter CXD2551P

Pin No.	Pin Name	I/O	Description
45	RESET	I	System reset input terminal (LOW ACTIVE)
46	X2	I	System clock input 4.19MHz
47	X1	I	System clock input 4.19MHz
48	DFCTSW	O	From focus in till spindle kick is ON except then is OFF.
49	AMUTE	O	Muting ON/OFF output
50	BSOUT	O	Audio bus output
51	AFADJ	I	Test mode input, and on time POWER "L" is test move ment of every kind
52	LDON	O	Laser diode ON/OFF output
53	XLT	O	Serial data latch pulse output for CXD2500Q
54	CLK	O	Serial clock output for CXD2500Q
55	DATA	O	Serial data output for CXD2500Q
56	Not Used	I	GND
57	ADJ	I	Test mode input, "L" is GFS no check.
58	GFS	I	GFS OK/NO Good input
59	FOK	I	Focus OK NO Good input
60	Not Used	O	OPEN
61	Not Used	O	OPEN
62	LODOUT	O	Disc tray loading-out output
63	LODIN	O	Disc tray loading-in output
64	VSS	I	GND

## SECTION 7

### EXPLODED VIEWS

**NOTE:**

- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Color Indication of Appearance Parts Example :
 

KNOB, BALANCE (WHITE)...(RED)  
     ↑                      ↑  
     Parts color      Cabinet's color
- EA : Saudi Arabia model  
 JE : Tourist model  
 CND : Canadian model  
 EE : East European model  
 G : Germany model  
 IT : Italian model  
 AUS : Australian model

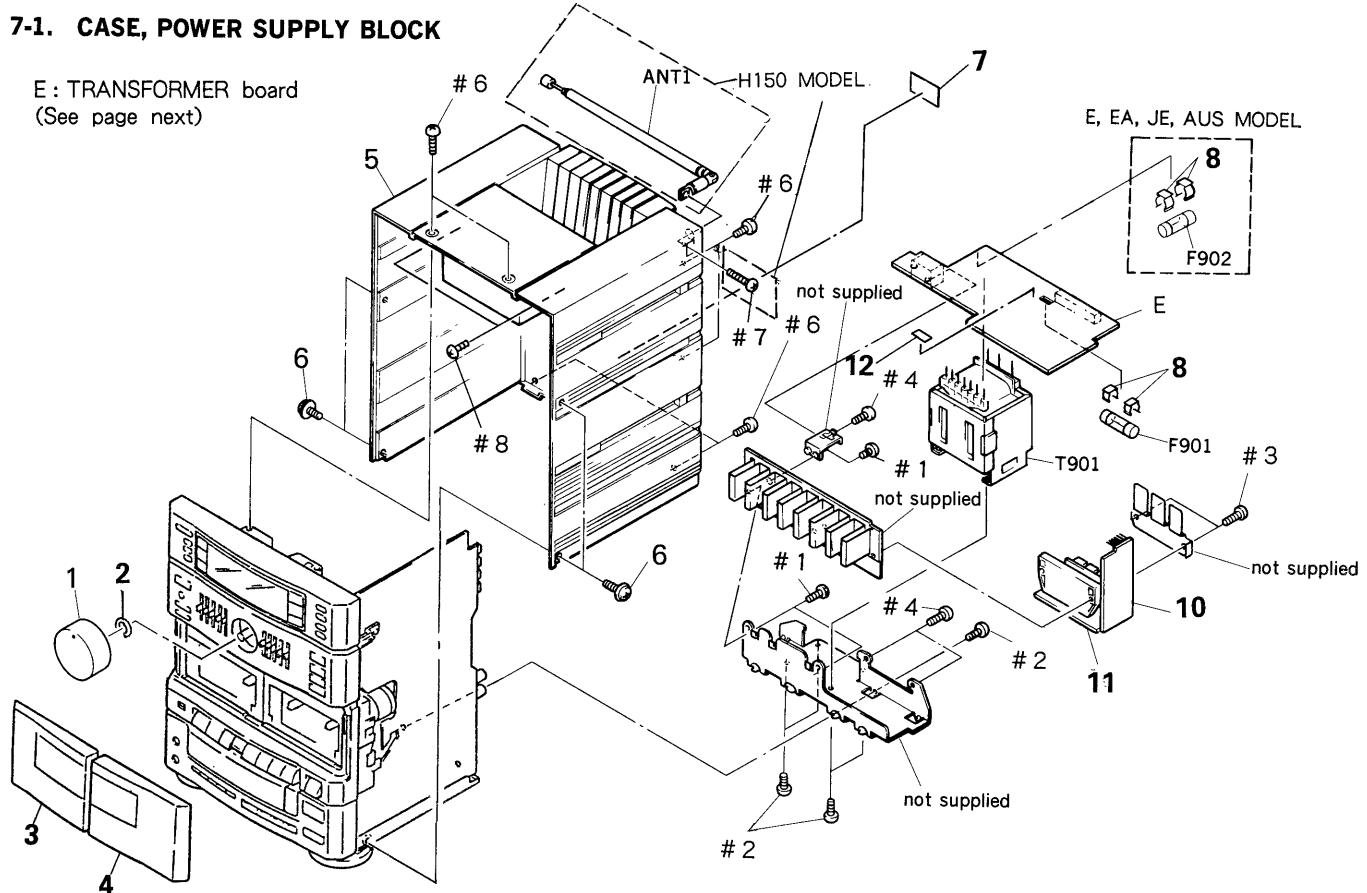
- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list is given in the last of this parts list.

The components identified by mark  $\triangle$  or dotted line with mark  $\triangle$  are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque  $\triangle$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

#### 7-1. CASE, POWER SUPPLY BLOCK

E : TRANSFORMER board  
(See page next)



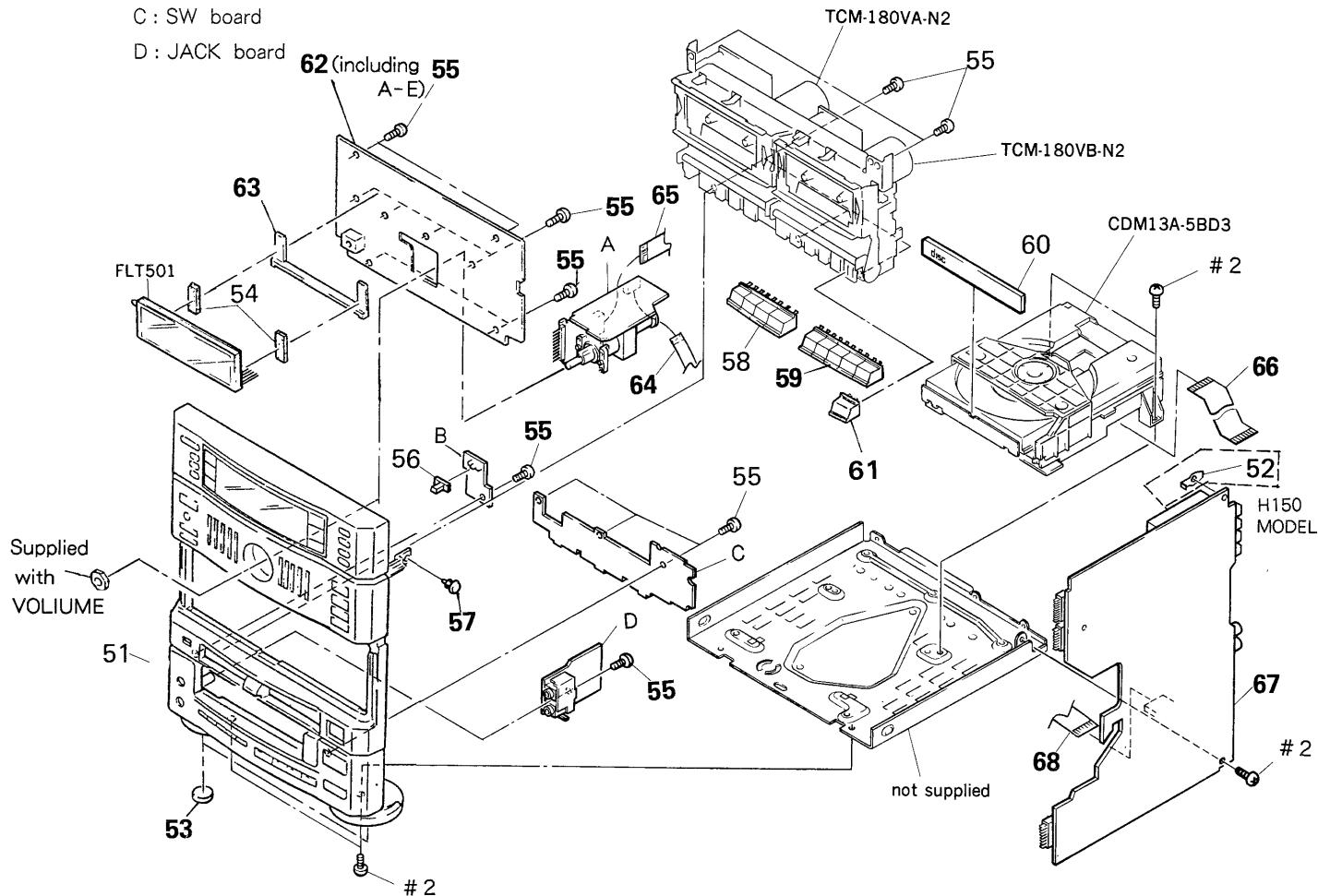
## 7-2. FRONT PANEL, MAIN BOARD BLOCK

A : VR board

B : DOLBY board

C : SW board

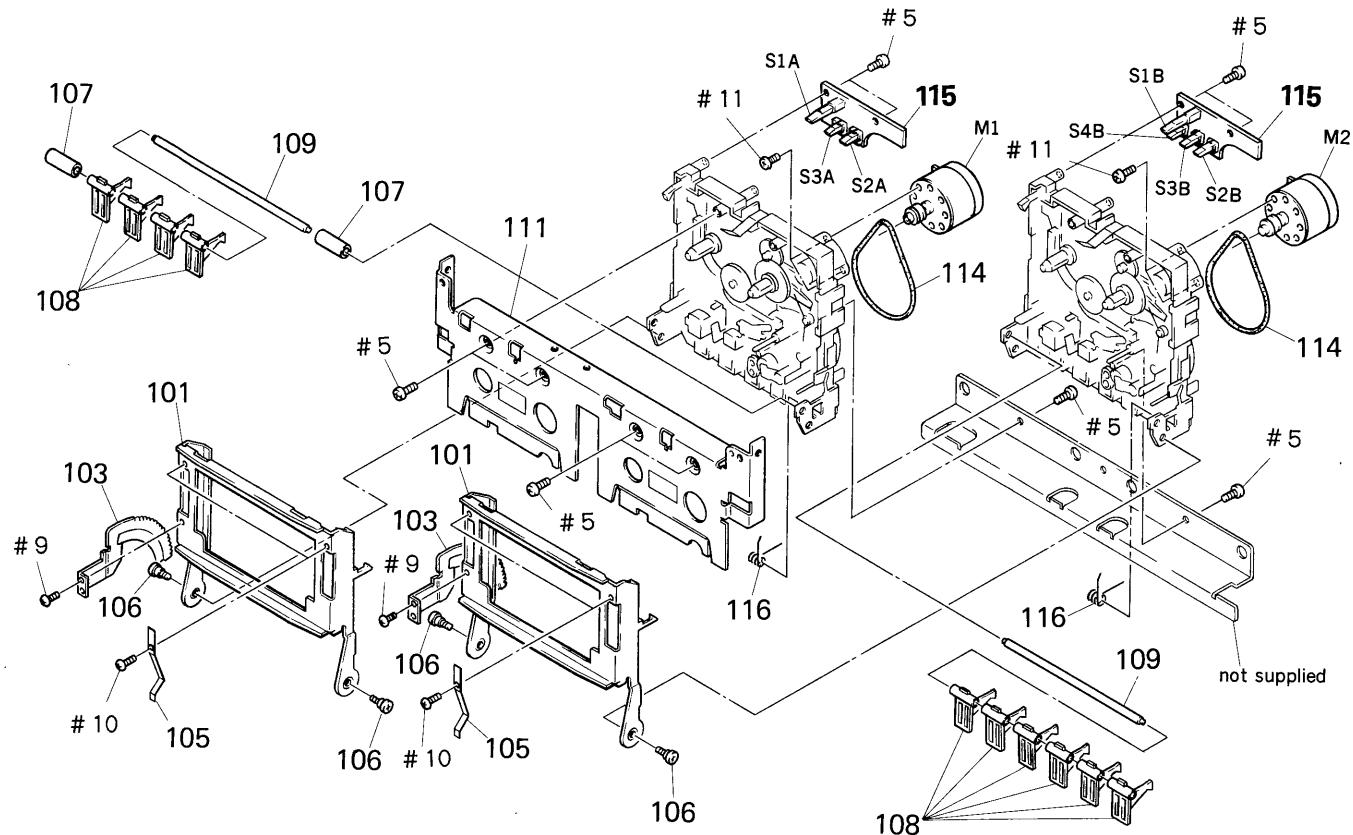
D : JACK board



<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remarks</u>
51	X-4942-338-1	PANEL ASSY, FRONT (H150:AEP, EE, G, IT)	
51	X-4942-339-1	PANEL ASSY, FRONT (H150:E, EA, US, CND, JE, AUS)	
51	X-4942-340-1	PANEL ASSY, FRONT (H500)	
52	* 4-925-530-01	PLATE, GROUND (H150)	
53	3-319-288-01	FOOT	
54	* 4-932-810-01	CUSHION (FL)	
55	4-928-635-01	SCREW, +BV (2.6X8) TAPPING	
56	4-950-129-01	KNOB (DOLBY)	
57	4-812-134-31	RIVET NYLON, 3.5	
58	4-950-138-01	BUTTON (TC-A)	
59	4-950-139-01	BUTTON (TC-B)	
60	4-950-127-01	PANEL, LOADING	
61	4-950-140-01	BUTTON (PAUSE)	
62	* A-4343-535-A	DISPLAY BOARD, COMPLETE (H150:G)	
62	* A-4343-536-A	DISPLAY BOARD, COMPLETE (H150:US, CND)	
62	* A-4343-539-A	DISPLAY BOARD, COMPLETE (H500:UK)	
62	* A-4343-540-A	DISPLAY BOARD, COMPLETE (H150:E, JE)	

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remarks</u>
62	* A-4343-542-A	DISPLAY BOARD, COMPLETE (H150:IT)	
62	* A-4343-541-A	DISPLAY BOARD, COMPLETE (H150:AEP/H500:AEP)	
62	* A-4343-543-A	DISPLAY BOARD, COMPLETE (H150:EE)	
62	* A-4343-544-A	DISPLAY BOARD, COMPLETE (H150:EA, AUS)	
63	* 4-950-132-01	HOLDER (FL)	
64	1-690-971-11	WIRE (FLAT TYPE) (8 CORE)	
65	1-690-970-11	WIRE (FLAT TYPE) (13 CORE)	
66	1-535-832-12	JUMPER, FILM (WITH TERMINAL)	
67	* A-4343-537-A	MAIN BOARD, COMPLETE (H150:US, CND)	
67	* A-4343-538-A	MAIN BOARD, COMPLETE (H500)	
67	* A-4343-694-A	MAIN BOARD, COMPLETE (H150:E, EA, JE, AUS)	
67	* A-4343-709-A	MAIN BOARD, COMPLETE (H150:AEP)	
67	* A-4343-710-A	MAIN BOARD, COMPLETE (H150:EE)	
67	* A-4343-711-A	MAIN BOARD, COMPLETE (H150:G, IT)	
68	1-575-673-11	WIRE, FLAT TYPE (15 CORE)	
FLT501	1-519-734-11	INDICATOR TUBE, FLUORESCENT	

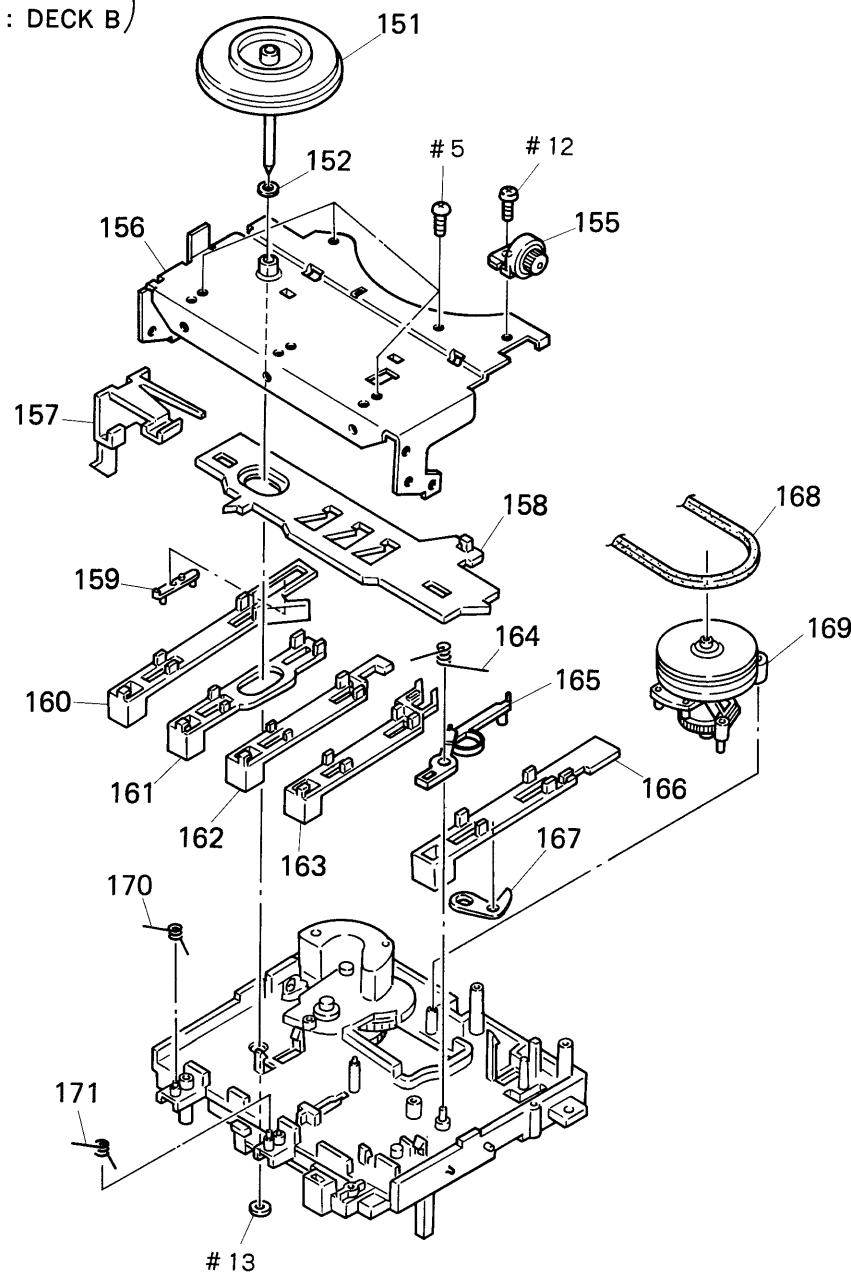
## 7-3. MD CHASSIS BLOCK



Ref. No.	Part No.	Description
101	3-358-282-01	HOLDER (FH), CASSETTE
103	* 3-358-276-01	RACK, GEAR
105	3-358-280-01	SPRING (CASSETTE HOLDER FH)
106	3-358-277-01	SCREW, STEP
107	* 3-358-216-01	COLLAR (DECK A)
108	3-358-268-01	LEVER (BUTTON BASE B)
109	3-358-242-01	SHAFT (BUTTON SHAFT)
111	X-4936-821-1	JOINT (UPPER) ASSY
114	3-358-230-01	BELT (A1)
115	* 1-635-160-11	PC BOARD, SWITCH

Ref. No.	Part No.	Description	Remarks
116	3-358-278-01	SPRING (LOADING FH), TORSION	
M1	X-3358-211-1	MOTOR (A) ASSY	
M2	X-3358-211-1	MOTOR (B) ASSY	
S1A	1-572-335-11	SWITCH, LEAF (Cr02) (DECK A)	
S1B	1-572-335-11	SWITCH, LEAF (Cr02) (DECK B)	
S2A	1-571-736-11	SWITCH, LEAF (MD POWER) (DECK A)	
S2B	1-571-736-11	SWITCH, LEAF (MD POWER) (DECK B)	
S3A	1-571-736-11	SWITCH, LEAF (PLAY) (DECK A)	
S3B	1-571-736-11	SWITCH, LEAF (PLAY) (DECK B)	
S4B	1-571-736-11	SWITCH, LEAF (REC) (DECK B)	

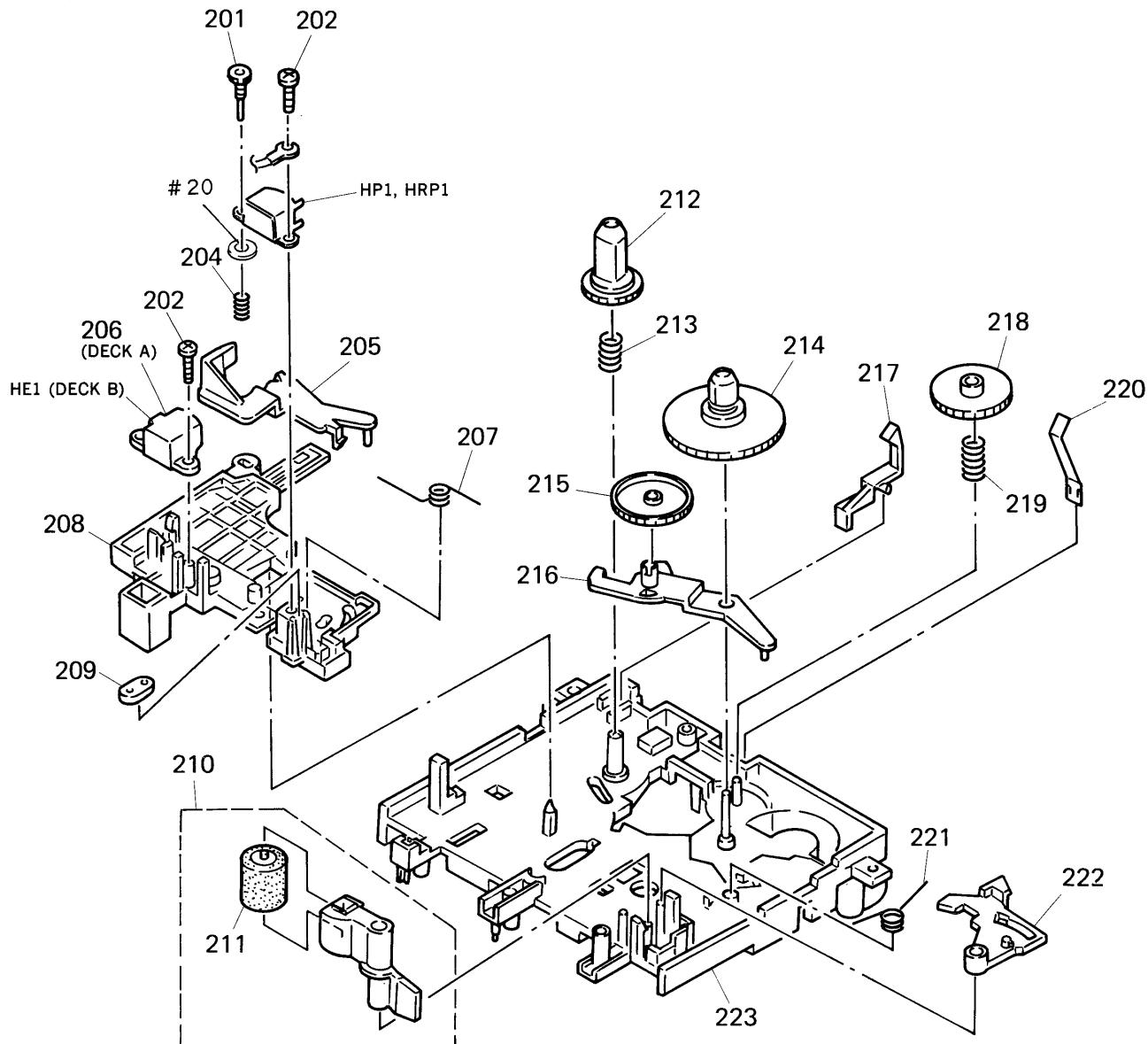
## 7-4. MECHANISM DECK BLOCK (1)

(TCM-180VA-N2: DECK A)  
(TCM-180VB-N2: DECK B)

Ref. No.	Part No.	Description	Remarks
151	X-3358-205-1	FLYWHEEL (A) ASSY	
152	3-701-437-01	WASHER	
155	4-919-393-21	DAMPER	
156	* X-3358-216-1	BRACKET (FH) ASSY	
157	3-358-281-01	SLIDER (HOLDER LOCK FH)	
158	* 3-358-249-01	SLIDER (LOCK PLATE)	
159	* 3-358-226-01	LEVER (PAUSE LEVER) (DECK B)	
160	3-358-260-01	SLIDER (PAUSE) (DECK B)	
161	3-358-256-01	SLIDER (STOP/EJECT)	
162	3-358-257-01	SLIDER (FF)	

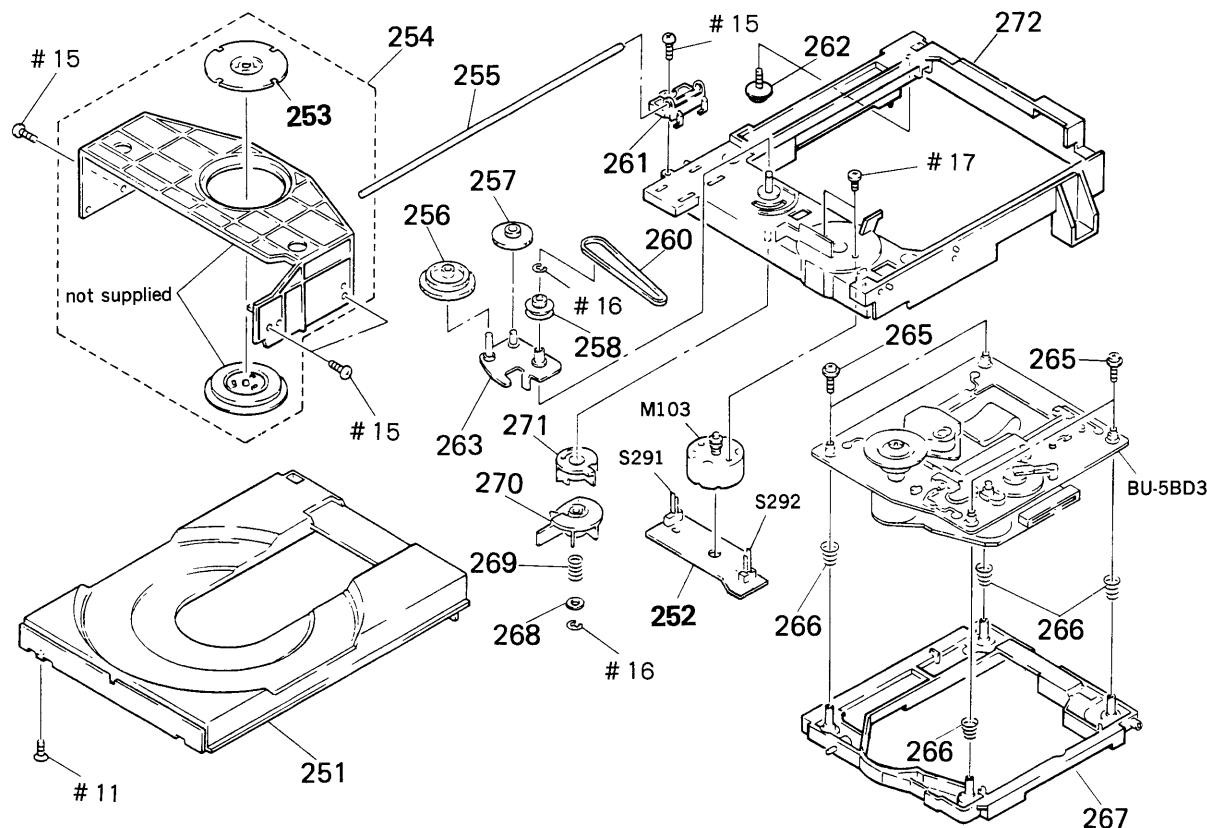
Ref. No.	Part No.	Description	Remarks
163	3-358-258-01	SLIDER (REW)	
164	3-358-214-01	SPRING (LOCK), TORSION (DECK A)	
164	3-358-233-01	SPRING (REC-LOCK), TORSION (DECK B)	
165	* 3-358-251-01	LEVER (TENSION DETECTION ARM)	
166	3-358-259-01	SLIDER (REC) (DECK B)	
167	* 3-358-204-01	LEVER (REC SAFETY) (DECK B)	
168	3-358-230-01	BELT (A1)	
169	X-3358-202-1	LEVER (FR ARM) ASSY	
170	3-358-232-01	SPRING (S-P F-R), TORSION (DECK B)	
170	3-358-279-01	SPRING (STOP), TORSION (DECK A)	
171	3-358-232-01	SPRING (S-P F-R), TORSION	

## 7-5. MECHANISM DECK BLOCK (2)

(TCM-180VA-N2: DECK A)  
(TCM-180VB-N2: DECK B)

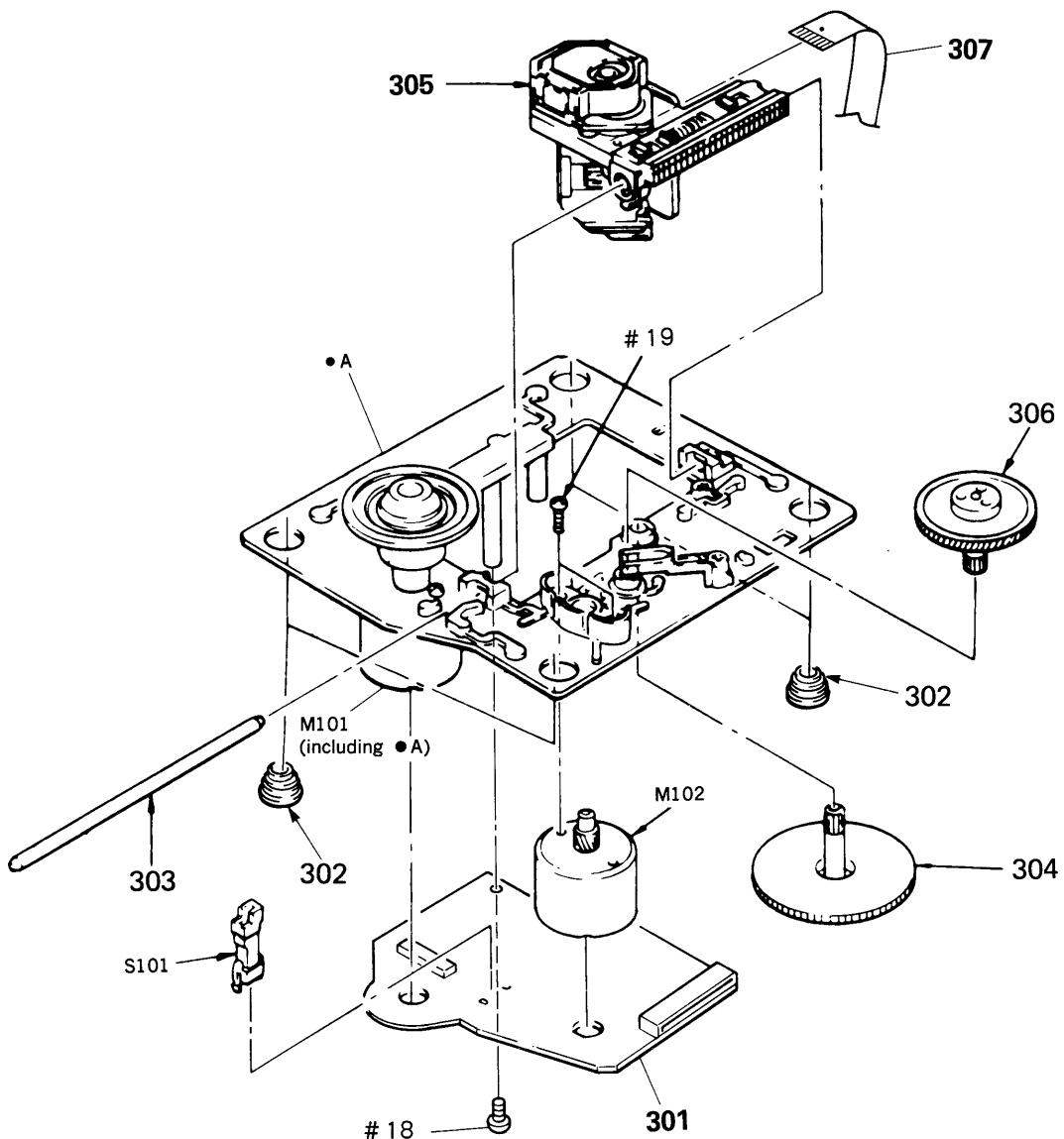
Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
201	3-358-288-01	SCREW (T), AZIMUTH		214	X-3358-203-1	TABLE (T) ASSY, REEL	
202	3-358-288-11	SCREW (T), AZIMUTH		215	* 3-358-284-01	GEAR (TU GEAR)	
204	3-358-234-01	SPRING (AZIMUTH), COMPRESSION		216	* 3-358-252-01	LEVER (TU ARM)	
205	3-358-286-01	LEVER (MOTOR LEVER)		217	* 3-358-255-01	LEVER (GB LEVER)	
206	3-358-285-01	GUIDE, TAPE (DECK A)		218	* 3-358-224-01	GEAR (FF GEAR)	
207	3-358-228-01	SPRING, TORSION		219	3-358-207-01	SPRING (FF GEAR), COMPRESSION	
208	3-358-265-01	SLIDER (HEAD PC BOARD A)		220	3-358-227-01	SPRING, LEAF	
209	* 3-358-215-01	BUSHING (WIRE KIT RETAINER)		221	3-358-243-01	SPRING (TU-SHUT), TORSION	
210	X-3358-204-1	LEVER (PINCH LEVER) ASSY		222	* 3-358-253-01	LEVER (SHUT-OFF LEVER)	
211	3-578-143-11	PINCH ROLLER		223	* X-3358-215-1	CHASSIS (B) ASSY	
212	3-358-248-01	GEAR (SUPPLY REEL)		HE1	1-543-673-11	HEAD, MAGNETIC (ERASE)	
213	3-358-208-01	SPRING (SUPPLY), COMPRESSION		HP1	1-543-319-11	HEAD, MAGNETIC (REC/PB)	
				HRP1	1-543-319-11	HEAD, MAGNETIC (REC/PB)	

**7-6. CD BLOCK (1)**  
**(CDM13A-5BD3)**



<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remarks</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remarks</u>
251	4-929-732-01	TABLE, DISK		265	4-933-134-01	SCREW (+PTPWH M2.6X6)	
252	* 1-634-461-11	LOADING BOARD		266	4-917-541-01	SPRING (B)	
253	4-918-673-01	YODE, CHUCKING		267	4-929-747-01	HOLDER (BU)	
254	A-4604-219-A	HOLDER (MG) ASSY		268	4-927-654-01	WASHER (LIMITER)	
255	4-929-764-01	SHAFT (TABLE GUIDE)		269	3-659-338-00	SPRING, COMPRESSION	
256	4-927-620-01	GEAR (P)		270	4-929-729-01	CAM (B)	
257	4-927-628-01	GEAR (C)		271	4-929-727-01	CAM (A)	
258	4-929-724-01	PULLEY (B)		272	X-4929-709-2	CHASSIS (MD) ASSY	
260	4-927-649-01	BELT		M103	A-4608-362-A	MOTOR (L) ASSY (LOADING)	
261	4-929-723-01	GUIDE (T)		S291	1-571-924-11	SWITCH, LEAF (LOAD OUT)	
262	* 4-917-583-21	BRACKET, YODE		S292	1-571-924-11	SWITCH, LEAF (LOAD IN)	
263	X-4929-703-1	ARM ASSY, SWING					

**7-7. CD BLOCK (2)  
(BU-5BD3)**



**Note:**  
The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety. Replace only with part number specified.

**Note:**  
Les composants identifiés par une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
301	* A-4617-371-A	BD BOARD, COMPLETE		306	4-917-567-01	GEAR (M)	
302	4-933-126-01	INSULATOR (A)		307	1-575-001-11	WIRE, FLAT TYPE (12 CORE)	
303	4-917-565-01	SHAFT, SLED		M101	X-4917-523-3	MOTOR ASSY (SPINDLE)	
304	4-917-564-01	GEAR (P), FLATNESS		M102	X-4917-504-1	MOTOR ASSY (SLED)	
305	$\Delta$ 8-848-144-11	DEVICE, OPTICAL KSS-240A		S101	1-572-085-11	SWICTH, LEAF (LIMIT IN)	

BD

## SECTION 8

### ELECTRICAL PARTS LIST

## NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- - XX, - X mean standardized parts, so they may have some difference from the original one.
- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- CAPACITORS :  
uF :  $\mu$ F
- EA : Saudi Arabia model  
JE : Tourist model  
CND : Canadian model  
EE : East European model

- RESISTORS  
All resistors are in ohms.  
METAL : metal-film resistor  
METAL OXIDE : Metal Oxide-film resistor  
F : nonflammable
- COILS  
uH :  $\mu$ H
- SEMICONDUCTORS  
In each case, u :  $\mu$ , for example :  
uA... :  $\mu$ A..., uPA... ,  $\mu$ PA... ,  
uPB... ,  $\mu$ PB... , uPC... ,  $\mu$ PC... ,  
uPD... ,  $\mu$ PD...

G : Germany model  
IT : Italian model  
AUS : Australian model

The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

Ref. No.	Part No.	Description			Remarks	Ref. No.	Part No.	Description			Remarks						
* A-4617-371-A BD BOARD, COMPLETE											< CONNECTOR >						
*****																	
< CAPACITOR >																	
C101	1-163-038-00 CERAMIC CHIP	0.1uF	25V					< IC >									
C102	1-163-989-11 CERAMIC CHIP	0.033uF	10%	25V				IC101	8-752-053-73 IC	CXA1372AQ							
C103	1-126-163-11 ELECT	4.7uF	20%	50V				IC102	8-759-822-36 IC	LA6532M							
C104	1-163-038-00 CERAMIC CHIP	0.1uF	25V					< JUMPER >									
C105	1-126-154-11 ELECT	47uF	20%	6.3V				JR101	1-216-295-00 METAL CHIP	0	5%	1/10W					
C106	1-126-154-11 ELECT	47uF	20%	6.3V				JR102	1-216-295-00 METAL CHIP	0	5%	1/10W					
C107	1-126-154-11 ELECT	47uF	20%	6.3V				< TRANSISTOR >									
C108	1-163-038-00 CERAMIC CHIP	0.1uF	25V					Q101	8-729-901-01 TRANSISTOR	DTC144EK							
C109	1-163-038-00 CERAMIC CHIP	0.1uF	25V					< RESISTOR >									
C110	1-163-989-11 CERAMIC CHIP	0.033uF	10%	25V				R101	1-216-097-00 METAL CHIP	100K	5%	1/10W					
C111	1-131-367-00 TANTALUM	22uF	10%	20V				R102	1-216-095-00 METAL CHIP	82K	5%	1/10W					
C112	1-164-232-11 CERAMIC CHIP	0.01uF		50V				R103	1-216-091-00 METAL CHIP	56K	5%	1/10W					
C113	1-164-232-11 CERAMIC CHIP	0.01uF		50V				R104	1-216-099-00 METAL CHIP	120K	5%	1/10W					
C114	1-164-161-11 CERAMIC CHIP	0.0022uF	10%	100V				R105	1-216-069-00 METAL CHIP	6.8K	5%	1/10W					
C115	1-164-161-11 CERAMIC CHIP	0.0022uF	10%	100V				R106	1-216-061-00 METAL CHIP	3.3K	5%	1/10W					
C117	1-163-038-00 CERAMIC CHIP	0.1uF		25V				R107	1-216-114-00 METAL GLAZE	510K	5%	1/10W					
C118	1-163-038-00 CERAMIC CHIP	0.1uF		25V				R108	1-216-105-00 METAL CHIP	220K	5%	1/10W					
C119	1-164-161-11 CERAMIC CHIP	0.0022uF	10%	100V				R109	1-216-061-00 METAL CHIP	3.3K	5%	1/10W					
C120	1-163-989-11 CERAMIC CHIP	0.033uF	10%	25V				R110	1-216-049-00 METAL CHIP	1K	5%	1/10W					
C151	1-163-019-00 CERAMIC CHIP	0.0068uF	10%	50V				R111	1-216-049-00 METAL CHIP	1K	5%	1/10W					
C152	1-163-038-00 CERAMIC CHIP	0.1uF		25V				R112	1-216-083-00 METAL CHIP	27K	5%	1/10W					
C153	1-163-006-11 CERAMIC CHIP	560PF	10%	50V				R113	1-216-071-00 METAL CHIP	8.2K	5%	1/10W					
C154	1-164-161-11 CERAMIC CHIP	0.0022uF	10%	100V				R114	1-216-105-00 METAL CHIP	220K	5%	1/10W					
C155	1-163-023-00 CERAMIC CHIP	0.015uF	5%	50V				R115	1-216-073-00 METAL CHIP	10K	5%	1/10W					
C171	1-163-038-00 CERAMIC CHIP	0.1uF		25V													
C172	1-163-038-00 CERAMIC CHIP	0.1uF		25V													
C173	1-163-038-00 CERAMIC CHIP	0.1uF		25V													
C174	1-163-038-00 CERAMIC CHIP	0.1uF		25V													

Ref. No.	Part No.	Description			Remarks	Ref. No.	Part No.	Description			Remarks
R153	1-216-085-00	METAL CHIP	33K	5%	1/10W	C417	1-126-157-11	ELECT	10uF	20%	16V
R154	1-216-085-00	METAL CHIP	33K	5%	1/10W	C418	1-126-157-11	ELECT	10uF	20%	16V
R155	1-216-093-00	METAL CHIP	68K	5%	1/10W	C419	1-126-157-11	ELECT	10uF	20%	16V
R156	1-216-081-00	METAL CHIP	22K	5%	1/10W	C420	1-126-157-11	ELECT	10uF	20%	16V
R157	1-216-079-00	METAL CHIP	18K	5%	1/10W	C421	1-126-157-11	ELECT	10uF	20%	16V
R158	1-216-079-00	METAL CHIP	18K	5%	1/10W	C422	1-126-157-11	ELECT	10uF	20%	16V
R159	1-216-079-00	METAL CHIP	18K	5%	1/10W	C423	1-161-379-00	CERAMIC	0.01uF	20%	25V
R160	1-216-049-00	METAL CHIP	1K	5%	1/10W	C451	1-162-282-31	CERAMIC	100PF	10%	50V
R171	1-216-001-00	METAL CHIP	10	5%	1/10W	C451	1-162-294-31	CERAMIC	0.001uF	10%	50V (H150:G, IT)
R172	1-216-001-00	METAL CHIP	10	5%	1/10W	C452	1-162-282-31	CERAMIC	100PF	10%	50V
R173	1-216-001-00	METAL CHIP	10	5%	1/10W	C453	1-162-290-31	CERAMIC	470PF	10%	50V
R174	1-216-001-00	METAL CHIP	10	5%	1/10W	C460	1-126-157-11	ELECT	10uF	20%	16V
< VARIABLE RESISTOR >						C471	1-162-294-31	CERAMIC	0.001uF	10%	50V
RV101	1-238-016-11	RES, ADJ, CARBON 10K				C472	1-162-294-31	CERAMIC	0.001uF	10%	50V
RV102	1-238-016-11	RES, ADJ, CARBON 10K				C473	1-162-282-31	CERAMIC	100PF	10%	50V
< SWITCH >						C474	1-162-215-31	CERAMIC	47PF	5%	50V
S101	1-572-085-11	SWITCH, LEAF(LIMIT IN)				C475	1-164-159-11	CERAMIC	0.1uF		50V
*****						C491	1-164-159-11	CERAMIC	0.1uF		50V
* A-4343-535-A DISPLAY BOARD, COMPLETE (H150:G)						C492	1-164-159-11	CERAMIC	0.1uF		50V
*****						C493	1-164-159-11	CERAMIC	0.1uF		50V
* A-4343-540-A DISPLAY BOARD, COMPLETE (H150:E, JE)						C494	1-164-159-11	CERAMIC	0.1uF		50V
*****						C501	1-162-282-31	CERAMIC	100PF	10%	50V
* A-4343-541-A DISPLAY BOARD, COMPLETE (H150:AEP/H500:AEP)						C502	1-162-294-31	CERAMIC	0.001uF	10%	50V
*****						C504	1-162-289-31	CERAMIC	390PF	10%	50V
* A-4343-542-A DISPLAY BOARD, COMPLETE (H150:IT)						C505	1-161-329-00	CERAMIC	0.0068uF	30%	16V
*****						C506	1-162-294-31	CERAMIC	0.001uF	10%	50V
* A-4343-544-A DISPLAY BOARD, COMPLETE (H150:EA, AUS)						C507	1-161-494-00	CERAMIC	0.022uF		25V
*****						C508	1-161-327-00	CERAMIC	0.0033uF	30%	16V
* A-4343-544-A DISPLAY BOARD, COMPLETE (H150:EA, AUS)						C509	1-164-159-11	CERAMIC	0.1uF		50V
*****						C510	1-161-379-00	CERAMIC	0.01uF	20%	25V
* A-4343-539-A DISPLAY BOARD, COMPLETE (H500:UK)						C511	1-124-464-11	ELECT	0.22uF	20%	50V
*****						C512	1-161-494-00	CERAMIC	0.022uF		25V
* A-4343-536-A DISPLAY BOARD, COMPLETE (H150:US, CND)						C513	1-126-160-11	ELECT	1uF	20%	50V
*****						C514	1-136-163-00	FILM	0.068uF	5%	50V
* A-4343-543-A DISPLAY BOARD, COMPLETE (H150:EE)						C515	1-136-163-00	FILM	0.068uF	5%	50V
*****						C521	1-161-379-00	CERAMIC	0.01uF	20%	25V
1-690-880-11 LEAD (WITH CONNECTOR) (EXCEPT H150:G, IT)						C522	1-164-159-11	CERAMIC	0.1uF		50V
1-690-880-61 LEAD (WITH CONNECTOR) (H150:G, IT)						C523	1-161-379-00	CERAMIC	0.01uF	20%	25V
* 4-932-810-01 CUSHION (FL)						C524	1-161-379-00	CERAMIC	0.01uF	20%	25V
* 4-950-132-01 HOLDER (FL)						C551	1-162-282-31	CERAMIC	100PF	10%	50V
< CAPACITOR >						C552	1-162-294-31	CERAMIC	0.001uF	10%	50V
C401	1-162-282-31	CERAMIC	100PF	10%	50V	C554	1-162-289-31	CERAMIC	390PF	10%	50V
				(EXCEPT H150:G, IT)		C555	1-161-329-00	CERAMIC	0.0068uF	30%	16V
C401	1-162-294-31	CERAMIC	0.001uF	10%	50V (H150:G, IT)	C556	1-162-294-31	CERAMIC	0.001uF	10%	50V
C402	1-162-282-31	CERAMIC	100PF	10%	50V	C557	1-161-494-00	CERAMIC	0.022uF		25V
C403	1-162-290-31	CERAMIC	470PF	10%	50V	C558	1-161-327-00	CERAMIC	0.0033uF	30%	16V
C410	1-126-157-11	ELECT	10uF	20%	16V	C559	1-164-159-11	CERAMIC	0.1uF		50V
C416	1-124-463-00	ELECT	0.1uF	20%	50V	C560	1-161-379-00	CERAMIC	0.01uF	20%	25V
				(EXCEPT H150:G, IT)		C561	1-124-464-11	ELECT	0.22uF	20%	50V
						C562	1-161-494-00	CERAMIC	0.022uF		25V

## DISPLAY

Ref. No.	Part No.	Description			Remarks	Ref. No.	Part No.	Description			Remarks
C563	1-126-160-11 ELECT	1uF	20%	50V		C1032	1-162-282-31 CERAMIC	150PF	10%	50V(H150:G, IT)	
C564	1-136-163-00 FILM	0.068uF	5%	50V		C1033	1-162-294-31 CERAMIC	0.001uF	10%	50V(H150:G, IT)	
C565	1-136-163-00 FILM	0.068uF	5%	50V		C1034	1-162-294-31 CERAMIC	0.001uF	10%	50V(H150:G, IT)	
C566	1-161-379-00 CERAMIC	0.01uF	20%	25V		C1035	1-161-379-00 CERAMIC	0.01uF	20%	25V(H150:G, IT)	
C568	1-126-157-11 ELECT	10uF	20%	16V		C5002	1-161-379-00 CERAMIC	0.01uF	20%	25V(H150:G, IT)	
C571	1-124-584-00 ELECT	100uF	20%	10V		C4001	1-126-157-11 ELECT	10uF	20%	16V	
C572	1-124-584-00 ELECT	100uF	20%	10V		C4002	1-161-379-00 CERAMIC	0.01uF	20%	25V	
C573	1-126-160-11 ELECT	1uF	20%	50V		C5001	1-161-375-00 CERAMIC	0.0022uF	20%	50V	
C574	1-126-160-11 ELECT	1uF	20%	50V				< CONNECTOR >			
C578	1-164-159-11 CERAMIC	0.1uF		50V		CN203	* 1-569-156-11 SOCKET, CONNECTOR 10P				
C579	1-136-173-00 FILM	0.47uF	5%	50V		CN401	* 1-569-418-11 PIN, CONNECTOR 13P				
C580	1-136-173-00 FILM	0.47uF	5%	50V		CN402	* 1-568-856-11 SOCKET, CONNECTOR 13P				
C581	1-136-173-00 FILM	0.47uF	5%	50V		CN403	* 1-568-827-11 SOCKET, CONNECTOR 8P				
C582	1-164-159-11 CERAMIC	0.1uF		50V		CN404	* 1-564-720-11 PIN, CONNECTOR (SMALL TYPE) 4P				
C583	1-162-282-31 CERAMIC	100PF	10%	50V		CN451	* 1-568-851-11 SOCKET, CONNECTOR 8P				
C584	1-162-282-31 CERAMIC	100PF	10%	50V		CN501	* 1-569-156-11 SOCKET, CONNECTOR 10P				
C585	1-161-379-00 CERAMIC	0.01uF	20%	25V		CN502	* 1-569-156-11 SOCKET, CONNECTOR 10P				
C586	1-161-379-00 CERAMIC	0.01uF	20%	25V		CN503	* 1-509-931-11 SOCKET, CONNECTOR				
C587	1-162-282-31 CERAMIC	100PF	10%	50V		CN901	1-526-930-11 INLET, AC (H150:AEP, EE, EA, G, IT/H500)				
C588	1-161-379-00 CERAMIC	0.01uF	20%	25V		CN901	1-526-931-11 INLET, AC (H150:AEP, EE, EA, G, IT, AUS/H500)				
C589	1-161-379-00 CERAMIC	0.01uF	20%	25V		CN901	1-526-930-11 INLET, AC (H150:E, JE, US, CND)				
C590	1-161-379-00 CERAMIC	0.01uF	20%	25V		CN902	* 1-568-858-11 SOCKET, CONNECTOR 15P				
C592	1-162-197-31 CERAMIC	6.8PF	10%	50V		CN903	* 1-565-484-11 CONNECTOR, BOARD TO BOARD 8P				
C593	1-162-197-31 CERAMIC	6.8PF	10%	50V				< COMPOSITION CIRCUIT BLOCK >			
C594	1-162-199-31 CERAMIC	10PF	5%	50V		CP503	* 1-233-216-11 COMPOSITION CIRCUIT BLOCK				
C595	1-162-199-31 CERAMIC	10PF	5%	50V		CP504	* 1-233-216-11 COMPOSITION CIRCUIT BLOCK				
C596	1-125-486-11 DOUBLE LAYERS	0.22F		5.5V							
C597	1-126-157-11 ELECT	10uF	20%	16V							
C598	1-124-584-00 ELECT	100uF	20%	10V							
C901	1-164-159-11 CERAMIC	0.1uF		50V							
C902	1-164-159-11 CERAMIC	0.1uF		50V		D406	8-719-987-63 DIODE	IN4148M			
C905	1-124-122-11 ELECT	100uF	20%	50V		D522	8-719-301-49 DIODE	SEL2810A			
C906	1-124-556-11 ELECT	2200uF	20%	16V		D523	8-719-301-49 DIODE	SEL2810A			
C907	1-124-572-11 ELECT	100uF	20%	63V		D571	8-719-987-63 DIODE	IN4148M			
C909	1-126-163-11 ELECT	4.7uF	20%	50V		D572	8-719-987-63 DIODE	IN4148M			
C911	1-126-163-11 ELECT	4.7uF	20%	50V		D574	8-719-987-63 DIODE	IN4148M			
C912	1-126-157-11 ELECT	10uF	20%	16V		D576	8-719-987-63 DIODE	IN4148M			
C913	1-126-163-11 ELECT	4.7uF	20%	50V		D577	8-719-987-63 DIODE	IN4148M			
C915	1-126-163-11 ELECT	4.7uF	20%	50V		D578	8-719-987-63 DIODE	IN4148M			
C916	1-126-163-11 ELECT	4.7uF	20%	50V		D579	8-719-987-63 DIODE	IN4148M			
C917	1-126-163-11 ELECT	4.7uF	20%	50V		D580	8-719-987-63 DIODE	IN4148M			
C920	1-164-159-11 CERAMIC	0.1uF		50V(H150:AUS)		D581	8-719-987-63 DIODE	IN4148M			
C921	1-164-159-11 CERAMIC	0.1uF		50V(H150:AUS)		D582	8-719-987-63 DIODE	IN4148M			
C922	1-126-163-11 ELECT	4.7uF	20%	50V		D583	8-719-987-63 DIODE	IN4148M			
C1026	1-164-159-11 CERAMIC	0.1uF		50V(H150:G, IT)		D584	8-719-987-63 DIODE	IN4148M			
C1027	1-164-159-11 CERAMIC	0.1uF		50V(H150:G, IT)		D585	8-719-987-63 DIODE	IN4148M (H150:E, EA, AUS, JE)			
C1028	1-164-282-31 CERAMIC	150PF	10%	50V(H150:G, IT)		D588	8-719-987-63 DIODE	IN4148M (EXCEPT H150:US, CND, IT)			
C1029	1-164-282-31 CERAMIC	150PF	10%	50V(H150:G, IT)		D589	8-719-987-63 DIODE	IN4148M (H150:IT)			
C1030	1-164-159-11 CERAMIC	0.1uF	10%	50V(H150:G, IT)		D590	8-719-987-63 DIODE	IN4148M (H150:E, EA, JE, AUS)			
C1031	1-161-379-00 CERAMIC	0.01uF	30%	16V(H150:G, IT)		D598	8-719-001-21 DIODE	UZL-9H1			

DISPLAY

Ref. No.	Part No.	Description			Remarks	Ref. No.	Part No.	Description			Remarks	
D903	8-719-200-82	DIODE	11ES2			R404	1-249-425-11	CARBON	4.7K	5%	1/4W	
D904	8-719-200-82	DIODE	11ES2			R405	1-249-401-11	CARBON	47	5%	1/4W	
D907	8-719-200-82	DIODE	11ES2			R406	1-249-429-11	CARBON	10K	5%	1/4W	
D908	8-719-200-82	DIODE	11ES2			R416	1-249-425-11	CARBON	4.7K	5%	1/4W	
D909	8-719-312-09	DIODE	RBA-402			R417	1-249-425-11	CARBON	4.7K	5%	1/4W	
D910	8-719-002-33	DIODE	UZL-24L			R418	1-249-425-11	CARBON	4.7K	5%	1/4W	
D911	8-719-014-64	DIODE	UZP-5.1BC			R419	1-249-417-11	CARBON	1K	5%	1/4W	
D912	8-719-933-36	DIODE	HZS6B1L			R426	1-249-417-11	CARBON	1K	5%	1/4W	
FB901	* 1-410-858-11	INDUCTOR	0uH (H150:G, IT)			R427	1-249-441-11	CARBON	100K	5%	1/4W	
FB902	* 1-410-858-11	INDUCTOR	0uH (H150:G, IT)			R428	1-247-903-00	CARBON	1M	5%	1/4W	
< FILTER >												
FLT501	1-519-734-11	INDICATOR TUBE, FLUORESCENT				R429	1-249-417-11	CARBON	1K	5%	1/4W	
< IC >												
IC401	8-759-634-50	IC	M5218AL			R430	1-249-425-11	CARBON	4.7K	5%	1/4W	
IC406	8-759-820-62	IC	LB1639			R431	1-249-425-11	CARBON	4.7K	5%	1/4W	
IC451	8-759-634-50	IC	M5218AL			R432	1-249-429-11	CARBON	10K	5%	1/4W	
IC501	8-759-630-99	IC	M5226FP			R451	1-249-417-11	CARBON	1K	5%	1/4W	
IC502	8-759-634-50	IC	M5218AL			R452	1-249-441-11	CARBON	100K	5%	1/4W	
IC503	8-759-520-98	IC	PST572K			R453	1-249-441-11	CARBON	100K	5%	1/4W	
IC505	8-759-153-84	IC	uPD75212ACW-273			R454	1-249-425-11	CARBON	4.7K	5%	1/4W	
IC506	8-749-922-36	IC	GP1U50XB			R455	1-249-401-11	CARBON	47	5%	1/4W	
IC551	8-759-630-99	IC	M5226FP			R456	1-249-429-11	CARBON	10K	5%	1/4W	
IC901	8-759-602-66	IC	M5230L-A			R457	1-249-429-11	CARBON	10K	5%	1/4W	
< JACK >												
J401	1-562-837-21	JACK (MIX MIC)				R466	1-249-425-11	CARBON	4.7K	5%	1/4W	
J451	1-562-837-21	JACK (HEADPHONES)				R467	1-249-425-11	CARBON	4.7K	5%	1/4W	
< TRANSISTOR >												
Q406	8-729-904-39	TRANSISTOR	DTC114TS			R468	1-249-425-11	CARBON	4.7K	5%	1/4W	
Q407	8-729-904-39	TRANSISTOR	DTC114TS			R469	1-249-417-11	CARBON	1K	5%	1/4W	
Q456	8-729-904-39	TRANSISTOR	DTC114TS			R471	1-249-429-11	CARBON	10K	5%	1/4W	
Q457	8-729-904-39	TRANSISTOR	DTC114TS			R472	1-249-411-11	CARBON	330	5%	1/4W	
Q501	8-729-904-39	TRANSISTOR	DTC114TS			R473	1-249-441-11	CARBON	100K	5%	1/4W	
Q551	8-729-904-39	TRANSISTOR	DTC114TS			R474	1-249-411-11	CARBON	330	5%	1/4W	
Q572	8-729-900-61	TRANSISTOR	DTA114ES			R475	1-249-441-11	CARBON	100K	5%	1/4W	
Q573	8-729-224-61	TRANSISTOR	2SK246-Y			R486	1-249-413-11	CARBON	470	5%	1/4W	
Q574	8-729-900-80	TRANSISTOR	DTC114ES			R487	1-249-429-11	CARBON	10K	5%	1/4W	
Q903	8-729-141-83	TRANSISTOR	2SB1094-LK			R501	1-247-903-00	CARBON	1M	5%	1/4W	
Q904	8-729-141-83	TRANSISTOR	2SB1094-LK			R502	1-249-425-11	CARBON	4.7K	5%	1/4W	
Q905	8-729-209-15	TRANSISTOR	2SD2012			R503	1-249-411-11	CARBON	330	5%	1/4W	
Q906	8-729-209-15	TRANSISTOR	2SD2012			R504	1-247-903-00	CARBON	1M	5%	1/4W	
Q907	8-729-900-80	TRANSISTOR	DTC114ES			R505	1-249-419-11	CARBON	1.5K	5%	1/4W	
Q908	8-729-900-80	TRANSISTOR	DTC114ES			R506	1-249-434-11	CARBON	27K	5%	1/4W	
< RESISTOR >												
R401	1-249-417-11	CARBON		1K	5%	1/4W	R507	1-247-903-00	CARBON	1M	5%	1/4W
R402	1-249-441-11	CARBON		100K	5%	1/4W	R522	1-249-409-11	CARBON	220	5%	1/4W
R403	1-249-441-11	CARBON		100K	5%	1/4W	R523	1-249-409-11	CARBON	220	5%	1/4W
							R524	1-249-439-11	CARBON	68K	5%	1/4W
							R525	1-249-417-11	CARBON	1K	5%	1/4W
							R526	1-249-405-11	CARBON	100	5%	1/4W
							R527	1-249-405-11	CARBON	100	5%	1/4W
							R528	1-249-405-11	CARBON	100	5%	1/4W
							R529	1-249-405-11	CARBON	100	5%	1/4W
							R530	1-249-405-11	CARBON	100	5%	1/4W
							R531	1-249-405-11	CARBON	100	5%	1/4W
							R534	1-249-405-11	CARBON	100	5%	1/4W

## DISPLAY

Ref. No.	Part No.	Description			Remarks	Ref. No.	Part No.	Description			Remarks	
R535	1-249-405-11	CARBON	100	5%	1/4W	RV551	1-241-860-11	RES, VAR, SLIDE 250K (12kHz)				
R536	1-249-405-11	CARBON	100	5%	1/4W	RV552	1-241-860-11	RES, VAR, SLIDE 250K (4kHz)				
R537	1-249-429-11	CARBON	10K	5%	1/4W	RV553	1-241-860-11	RES, VAR, SLIDE 250K (1kHz)				
R551	1-247-903-00	CARBON	1M	5%	1/4W	RV554	1-241-860-11	RES, VAR, SLIDE 250K (400Hz)				
R552	1-249-425-11	CARBON	4.7K	5%	1/4W	RV555	1-241-860-11	RES, VAR, SLIDE 250K (100Hz)				
R553	1-249-411-11	CARBON	330	5%	1/4W	< SWITCH >						
R554	1-247-903-00	CARBON	1M	5%	1/4W	S201	1-572-184-11	SWITCH, KEYBOARD (EDIT)				
R555	1-249-419-11	CARBON	1.5K	5%	1/4W	S202	1-572-184-11	SWITCH, KEYBOARD (■)				
R556	1-249-434-11	CARBON	27K	5%	1/4W	S203	1-572-184-11	SWITCH, KEYBOARD (■)				
R557	1-247-903-00	CARBON	1M	5%	1/4W	S204	1-572-184-11	SWITCH, KEYBOARD (OPEN/CLOSE)				
R569	1-249-429-11	CARBON	10K	5%	1/4W	S205	1-572-184-11	SWITCH, KEYBOARD (►)				
R570	1-249-417-11	CARBON	1K	5%	1/4W	S206	1-572-184-11	SWITCH, KEYBOARD (◀)				
R571	1-249-441-11	CARBON	100K	5%	1/4W	S207	1-572-184-11	SWITCH, KEYBOARD (►)				
R572	1-247-891-00	CARBON	330K	5%	1/4W	S208	1-572-184-11	SWITCH, KEYBOARD (◀)				
R573	1-249-425-11	CARBON	4.7K	5%	1/4W	S209	1-572-184-11	SWITCH, KEYBOARD (REPEAT)				
R574	1-249-441-11	CARBON	100K	5%	1/4W	S210	1-572-184-11	SWITCH, KEYBOARD (CONTINUE)				
R577	1-249-405-11	CARBON	100	5%	1/4W	S211	1-572-184-11	SWITCH, KEYBOARD (SHUFFLE)				
R582	1-249-429-11	CARBON	10K	5%	1/4W	S212	1-572-184-11	SWITCH, KEYBOARD (PROGRAM)				
R596	1-249-429-11	CARBON	10K	5%	1/4W	S214	1-572-184-11	SWITCH, KEYBOARD (TIME)				
R599	1-249-429-11	CARBON	10K	5%	1/4W	S350	1-553-977-00	SWITCH, SLIDE (DOLBY NR)				
R905	△ 1-212-934-00	FUSIBLE	1	5%	1/2W F (EXCEPT H150:US, CND)	S501	1-572-184-11	SWITCH, KEYBOARD (TIMER CONTROL)				
R905	△ 1-212-952-00	FUSIBLE	5.6	5%	1/2W F (H150:US, CND)	S503	1-572-184-11	SWITCH, KEYBOARD (TIMER SET)				
R906	△ 1-212-934-00	FUSIBLE	1	5%	1/2W F	S504	1-572-184-11	SWITCH, KEYBOARD (CLOCK SET)				
R907	△ 1-212-934-00	FUSIBLE	1	5%	1/2W F (EXCEPT H150:US, CND)	S505	1-572-184-11	SWITCH, KEYBOARD (CLOCK DISPLAY)				
R907	△ 1-212-952-00	FUSIBLE	5.6	5%	1/2W F (H150:US, CND)	S506	1-572-184-11	SWITCH, KEYBOARD (POWER)				
R908	1-249-425-11	CARBON	4.7K	5%	1/4W	S507	1-572-184-11	SWITCH, KEYBOARD (DBFB)				
R909	1-249-433-11	CARBON	22K	5%	1/4W	S508	1-572-184-11	SWITCH, KEYBOARD (S-SUR)				
R910	1-247-903-00	CARBON	1M	5%	1/4W	S509	1-572-184-11	SWITCH, KEYBOARD (TAPE)				
R911	1-249-405-11	CARBON	100	5%	1/4W	S510	1-572-184-11	SWITCH, KEYBOARD (CD)				
R912	1-249-432-11	CARBON	18K	5%	1/4W	S511	1-572-184-11	SWITCH, KEYBOARD (TUNER)				
R913	1-249-432-11	CARBON	18K	5%	1/4W	S512	1-572-184-11	SWITCH, KEYBOARD (VIDEO/AUX)				
R914	1-247-842-11	CARBON	3K	5%	1/4W	S513	1-572-184-11	SWITCH, KEYBOARD (BAND)				
R915	1-249-429-11	CARBON	10K	5%	1/4W	S514	1-572-184-11	SWITCH, KEYBOARD (-)				
R917	1-249-413-11	CARBON	470	5%	1/4W	S515	1-572-184-11	SWITCH, KEYBOARD (+)				
R920	△ 1-219-134-11	FUSIBLE	0.1	5%	1/4W F	S516	1-572-184-11	SWITCH, KEYBOARD (AUTO)				
R926	1-202-725-00	SOLID	3.3M	10%	1/2W (H150:US, CND)	S517	1-572-184-11	SWITCH, KEYBOARD (MEMORY)				
R4001	1-249-423-11	CARBON	3.3K	5%	1/4W	S518	1-572-184-11	SWITCH, KEYBOARD (ENTER)				
< VARIABLE RESISTOR >												
RV406	1-241-419-21	RES, VAR, CARBON 100KX2 (VOLUME)										
RV501	1-241-860-11	RES, VAR, SLIDE 250K (12kHz)										
RV502	1-241-860-11	RES, VAR, SLIDE 250K (4kHz)										
RV503	1-241-860-11	RES, VAR, SLIDE 250K (1kHz)										
RV504	1-241-860-11	RES, VAR, SLIDE 250K (400Hz)										
RV505	1-241-860-11	RES, VAR, SLIDE 250K (100Hz)										
< VIBRATOR >												
X501	1-567-821-21	VIBRATOR, CRYSTAL 4.19MHz										
X502	1-527-997-21	VIBRATOR, CRYSTAL 32kHz										
*****												

Note:	Note:
The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

DISPLAY	LOADING	MAIN	POWER	CHAMICAL CONDENSOR
---------	---------	------	-------	--------------------

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
	* 1-634-461-11	LOADING BOARD		C52	1-164-056-11	CERAMIC	27PF 5% 50V
	*****	*****		C53	1-161-379-00	CERAMIC	0.01uF 20% 25V
	< CONNECTOR >			C54	1-161-379-00	CERAMIC	0.01uF 20% 25V
CN291	* 1-564-498-11	PIN, CONNECTOR 5P		C55	1-161-379-00	CERAMIC	0.01uF 20% 25V
	< SWITCH >			C56	1-161-379-00	CERAMIC	0.01uF 20% 25V
S291	1-571-924-11	SWITCH, LEAF (LOAD OUT)		C57	1-161-379-00	CERAMIC	0.01uF 20% 25V
S292	1-571-924-11	SWITCH, LEAF (LOAD IN)		C58	1-124-907-11	ELECT	10uF 20% 50V
	*****	*****		C59	1-161-379-00	CERAMIC	0.01uF 20% 25V
	* A-4343-711-A	MAIN BOARD, COMPLETE (H150:G, IT)		C60	1-124-477-11	ELECT	47uF 20% 25V
	*****	*****		C61	1-124-925-11	ELECT	2.2uF 20% 100V
	* A-4343-709-A	MAIN BOARD, COMPLETE (H150:AEP)		C62	1-136-153-00	FILM	0.01uF 5% 50V
	*****	*****		C63	1-124-463-00	ELECT	0.1uF 20% 50V
	* A-4343-694-A	MAIN BOARD, COMPLETE (H150:E, EA, JE, AUS)		C64	1-124-902-00	ELECT	0.47uF 20% 50V (H150:AEP, EE, G, IT/H500)
	*****	*****		C65	1-136-157-00	FILM	0.022uF 5% 50V (H150:AEP, EE, G, IT/H500)
	* A-4343-538-A	MAIN BOARD, COMPLETE (H500)		C66	1-136-157-00	FILM	0.022uF 5% 50V (H150:AEP, EE, G, IT/H500)
	*****	*****		C67	1-162-282-31	CERAMIC	100PF 10% 50V
	* A-4343-537-A	MAIN BOARD, COMPLETE (H150:US, CND)		C81	1-161-379-00	CERAMIC	0.01uF 20% 25V
	*****	*****		C82	1-124-472-11	ELECT	47uF 20% 10V
	* A-4343-710-A	MAIN BOARD, COMPLETE (H150:EE)		C83	1-161-379-00	CERAMIC	0.01uF 20% 25V
	*****	*****		C84	1-124-907-11	ELECT	10uF 20% 50V
	* 1-634-849-13	POWER BOARD		C85	1-161-379-00	CERAMIC	0.01uF 20% 25V
	*****	*****		C86	1-162-282-31	CERAMIC	100PF 10% 50V
	* 1-634-850-13	CHAMICAL CONDENSOR BOARD		C87	1-161-379-00	CERAMIC	0.01uF 20% 25V
	*****	*****		C88	1-124-907-11	ELECT	10uF 20% 50V
	< CAPACITOR >			C89	1-161-379-00	CERAMIC	0.01uF 20% 25V
C1	1-162-195-31	CERAMIC	4.7PF 10% 50V (EXCEPT H150:US, CND, G, IT)	C90	1-124-477-11	ELECT	47uF 20% 25V
C2	1-124-907-11	ELECT	10uF 20% 50V	C91	1-162-294-31	CERAMIC	0.001uF 10% 50V
C3	1-161-379-00	CERAMIC	0.01uF 20% 25V	C92	1-162-294-31	CERAMIC	0.001uF 10% 50V
C4	1-162-294-31	CERAMIC	0.001uF 10% 50V	C93	1-161-375-00	CERAMIC	0.0022uF 20% 50V
C5	1-161-379-00	CERAMIC	0.01uF 20% 25V	C94	1-161-375-00	CERAMIC	0.0022uF 20% 50V
C6	1-164-159-11	CERAMIC	0.1uF 50V (H150:E, EA, JE, AUS)	C95	1-124-903-11	ELECT	1uF 20% 50V
C7	1-164-159-11	CERAMIC	0.1uF 50V (EXCEPT H150:US, CND)	C96	1-124-903-11	ELECT	1uF 20% 50V
C8	1-161-379-00	CERAMIC	0.01uF 20% 25V (H150:AEP, EE, G, IT/H500)	C97	1-124-903-11	ELECT	1uF 20% 50V
C9	1-102-120-00	CERAMIC	0.0018uF 10% 50V (H150:AEP, EE, G, IT/H500)	C98	1-124-903-11	ELECT	1uF 20% 50V
C10	1-161-374-11	CERAMIC	0.0015uF 20% 50V (H150:AEP, EE, G, IT/H500)	C99	1-136-154-00	FILM	0.012uF 5% 50V (EXCEPT H150:US, CND)
C21	1-161-379-00	CERAMIC	0.01uF 20% 25V (H150:E, EA, JE, AUS)	C99	1-136-155-00	FILM	0.015uF 5% 50V (H150:US, CND)
C22	1-102-947-00	CERAMIC	10PF 5% 50V (H150:EA, JE, AUS)	C100	1-136-154-00	FILM	0.012uF 5% 50V (EXCEPT H150:US, CND)
C23	1-136-162-00	FILM	0.056uF 5% 50V (H150:E, EA, JE, AUS)	C100	1-136-155-00	FILM	0.015uF 5% 50V (H150:US, CND)
C24	1-136-161-00	FILM	0.047uF 5% 50V (H150:E, EA, JE, AUS)	C101	1-124-907-11	ELECT	10uF 20% 50V
C51	1-164-056-11	CERAMIC	27PF 5% 50V	C102	1-161-379-00	CERAMIC	0.01uF 20% 25V
				C103	1-124-463-00	ELECT	0.1uF 20% 50V
				C104	1-124-903-11	ELECT	1uF 20% 50V
				C105	1-124-903-11	ELECT	1uF 20% 50V
				C106	1-124-903-11	ELECT	1uF 20% 50V
				C107	1-162-282-31	CERAMIC	100PF 10% 50V (H150:G, IT)

MAIN	POWER	CHAMICAL CONDENSOR
------	-------	--------------------

Ref. No.	Part No.	Description			Remarks	Ref. No.	Part No.	Description			Remarks
C108	1-162-211-31 CERAMIC	33PF	5%	50V	(EXCEPT H150:G, IT)	C623	1-130-474-00 MYLAR	0.0018uF	5%	50V	(H150:AEP, EE, G, IT/H500)
C108	1-162-291-31 CERAMIC	560PF	5%	50V	(H150:G, IT)	C624	1-130-480-00 MYLAR	0.0056uF	5%	50V	(H150:AEP, EE, G, IT/H500)
C109	1-161-379-00 CERAMIC	0.01uF	20%	25V		C625	1-124-907-11 ELECT	10uF	20%	50V	(H150:AEP, EE, G, IT/H500)
C110	1-161-379-00 CERAMIC	0.01uF	20%	25V		C626	1-124-903-11 ELECT	1uF	20%	50V	(H150:AEP, EE, G, IT/H500)
C111	1-124-925-11 ELECT	2.2uF	20%	100V		C627	1-162-294-31 CERAMIC	0.001uF	10%	50V	(H150:G, IT)
C112	1-161-379-00 CERAMIC	0.01uF	20%	25V		C627	1-162-282-31 CERAMIC	100PF	10%	50V	(H150:AEP, EE/H500)
C114	1-161-379-00 CERAMIC	0.01uF	20%	25V		C628	1-161-294-31 CERAMIC	0.001uF	10%	50V	(H150:AEP, EE, G, IT/H500)
C116	1-161-379-00 CERAMIC	0.01uF	20%	25V		C651	1-162-293-31 CERAMIC	820PF	10%	50V	
C117	1-161-379-00 CERAMIC	0.01uF	20%	25V		C652	1-162-282-31 CERAMIC	100PF	10%	50V	
C131	1-161-379-00 CERAMIC	0.01uF	20%	25V		C653	1-136-157-00 FILM	0.022uF	5%	50V	
C132	1-162-207-31 CERAMIC	22pF	5%	50V	(H150:EE, G, IT)	C654	1-126-157-11 ELECT	10uF	20%	16V	
C201	1-164-159-11 CERAMIC	0.1uF		50V		C657	1-162-294-31 CERAMIC	0.001PF	10%	50V	(H150:G, IT)
C211	1-136-161-00 FILM	0.047uF	5%	50V		C657	1-162-282-31 CERAMIC	100PF	10%	50V	(H150:AEP, EE/H500)
C212	1-161-374-11 CERAMIC	0.0015uF	20%	50V		C658	1-161-379-00 CERAMIC	0.01uF	20%	25V	(H150:AEP, EE, G, IT/H500)
C213	1-161-379-00 CERAMIC	0.01uF	20%	25V		C659	1-136-161-00 FILM	0.047uF	5%	50V	
C214	1-124-465-00 ELECT	0.47uF	20%	50V		C661	1-162-293-31 CERAMIC	820PF	10%	50V	
C215	1-164-159-11 CERAMIC	0.1uF		50V		C662	1-162-282-31 CERAMIC	100PF	10%	50V	
C221	1-162-207-31 CERAMIC	22PF	5%	50V		C663	1-136-157-00 FILM	0.022uF	5%	50V	
C222	1-162-207-31 CERAMIC	22PF	5%	50V		C664	1-124-907-11 ELECT	10uF	20%	50V	
C223	1-124-443-00 ELECT	100uF	20%	10V		C671	1-162-282-31 CERAMIC	100PF	10%	50V	
C225	1-136-165-00 FILM	0.1uF	5%	50V		C672	1-162-282-31 CERAMIC	100PF	10%	50V	
C229	1-124-907-11 ELECT	10uF	20%	50V		C673	1-130-474-00 MYLAR	0.0018uF	5%	50V	(H150:AEP, EE, G, IT/H500)
C231	1-161-374-11 CERAMIC	0.0015uF	20%	50V		C674	1-130-480-00 MYLAR	0.0056uF	5%	50V	(H150:AEP, EE, G, IT/H500)
C232	1-161-374-11 CERAMIC	0.0015uF	20%	50V		C675	1-124-907-11 ELECT	10uF	20%	50V	(H150:AEP, EE, G, IT/H500)
C233	1-162-286-31 CERAMIC	220PF	10%	50V		C676	1-124-903-11 ELECT	1uF	20%	50V	
C234	1-162-286-31 CERAMIC	220PF	10%	50V		C701	1-162-290-31 CERAMIC	470PF	10%	50V	
C235	1-124-903-11 ELECT	1uF	20%	50V		C702	1-162-290-31 CERAMIC	470PF	10%	50V	
C236	1-124-903-11 ELECT	1uF	20%	50V		C703	1-124-254-00 ELECT	0.68uF	20%	50V	
C237	1-124-907-11 ELECT	10uF	20%	50V		C704	1-124-907-11 ELECT	10uF	20%	50V	
C238	1-124-907-11 ELECT	10uF	20%	50V		C705	1-126-157-11 ELECT	10uF	20%	16V	
C251	1-162-282-31 CERAMIC	100PF	10%	50V		C706	1-124-902-00 ELECT	0.47uF	20%	50V	
C252	1-162-282-31 CERAMIC	100PF	10%	50V		C707	1-124-925-11 ELECT	2.2uF	20%	100V	
C253	1-162-282-31 CERAMIC	100PF	10%	50V		C709	1-124-907-11 ELECT	10uF	20%	50V	
C254	1-162-282-31 CERAMIC	100PF	10%	50V		C710	1-162-288-31 CERAMIC	330PF	10%	50V	
C255	1-162-282-31 CERAMIC	100PF	10%	50V		C711	1-162-282-31 CERAMIC	100PF	10%	50V	
C256	1-161-379-00 CERAMIC	0.01uF	20%	25V		C712	1-124-443-00 ELECT	100uF	20%	10V	
C257	1-161-379-00 CERAMIC	0.01uF	20%	25V		C713	1-161-379-00 CERAMIC	0.1uF	20%	25V	
C258	1-161-379-00 CERAMIC	0.01uF	20%	25V		C714	1-162-294-31 CERAMIC	0.001uF	10%	50V	
C601	1-162-293-31 CERAMIC	820PF	10%	50V		C721	1-161-374-11 CERAMIC	0.0015uF	20%	50V	
C602	1-162-282-31 CERAMIC	100PF	10%	50V		C722	1-161-329-00 CERAMIC	0.0068uF	30%	16V	
C603	1-136-157-00 FILM	0.022uF	5%	50V		C723	1-124-903-11 ELECT	1uF	20%	50V	
C604	1-126-157-11 ELECT	10uF	20%	16V		C724	1-124-925-11 ELECT	2.2uF	20%	100V	
C609	1-136-161-00 FILM	0.047uF	5%	50V							
C610	1-161-379-00 CERAMIC	0.01uF	20%	25V							
C611	1-162-293-31 CERAMIC	820PF	10%	50V							
C612	1-162-282-31 CERAMIC	100PF	10%	50V							
C613	1-136-157-00 FILM	0.022uF	5%	50V							
C614	1-124-907-11 ELECT	10uF	20%	50V							
C621	1-162-282-31 CERAMIC	100PF	10%	50V							
C622	1-162-282-31 CERAMIC	100PF	10%	50V							

## MAIN POWER CHAMICAL CONDENSOR

Ref. No.	Part No.	Description			Remarks	Ref. No.	Part No.	Description			Remarks
C725	1-136-153-00 FILM	0.01uF	5%	50V	(H150:AEP, EE, G, IT/H500)	C997	1-124-903-11 ELECT	1uF	20%	50V	
C725	1-136-154-00 FILM	0.012uF	5%	50V	(H150:E, US, CND, EA, JE, AUS)	C998	1-126-176-11 ELECT	220uF	20%	10V	
C726	1-130-475-00 MYLAR	0.0022uF	5%	50V	(H150:AEP, EE, G, IT/H500)	C1001	1-124-907-11 ELECT	10uF	20%	50V	
C727	1-130-475-00 MYLAR	0.0022uF	5%	50V	(H150:AEP, EE, G, IT/H500)	C1002	1-162-288-31 CERAMIC	100uF	10%	50V (H150:G, IT)	
C728	1-162-286-31 CERAMIC	220PF	10%	50V		C1003	1-162-294-31 CERAMIC	0.001uF	10%	50V (H150:G, IT)	
C729	1-162-286-31 CERAMIC	220PF	10%	50V		C1004	1-162-294-31 CERAMIC	0.001uF	10%	50V (H150:G, IT)	
C731	1-124-927-11 ELECT	4.7uF	20%	100V		C1005	1-162-294-31 CERAMIC	0.001uF	10%	50V (H150:G, IT)	
C735	1-124-907-11 ELECT	10uF	20%	50V		C1006	1-162-294-31 CERAMIC	0.001uF	10%	50V (H150:G, IT)	
C736	1-161-379-00 CERAMIC	0.01uF	20%	25V		C1007	1-164-159-31 CERAMIC	0.1uF		50V (H150:G, IT)	
C737	1-124-443-00 ELECT	100uF	20%	10V		C1008	1-164-159-31 CERAMIC	0.1uF		50V (H150:G, IT)	
C738	1-161-379-00 CERAMIC	0.01uF	20%	25V		C1009	1-161-379-00 CERAMIC	0.01uF	20%	25V (H150:G, IT)	
C739	1-164-159-11 CERAMIC	0.1uF		50V		C1010	1-161-379-00 CERAMIC	0.01uF	20%	25V (H150:G, IT)	
C740	1-164-159-11 CERAMIC	0.1uF		50V (H150:US, CND)		C1011	1-161-379-00 CERAMIC	0.01uF	20%	25V (H150:G, IT)	
C751	1-162-290-31 CERAMIC	470PF	10%	50V		C1012	1-161-379-00 CERAMIC	0.01uF	20%	25V (H150:G, IT)	
C752	1-162-290-31 CERAMIC	470PF	10%	50V		C1013	1-161-379-00 CERAMIC	0.01uF	20%	25V (H150:G, IT)	
C753	1-124-254-00 ELECT	0.68uF	20%	50V		C1014	1-161-379-00 CERAMIC	0.01uF	20%	25V (H150:G, IT)	
C754	1-124-907-11 ELECT	10uF	20%	50V		C1015	1-161-379-00 CERAMIC	0.01uF	20%	25V (H150:G, IT)	
C755	1-126-157-11 ELECT	10uF	20%	16V		C1017	1-161-379-00 CERAMIC	0.01uF	20%	25V	
C756	1-124-902-00 ELECT	0.47uF	20%	50V		C1019	1-164-159-11 CERAMIC	0.1uF		50V (H150:G, IT)	
C757	1-124-925-11 ELECT	2.2uF	20%	100V		C1020	1-164-159-11 CERAMIC	0.1uF		50V (H150:G, IT)	
C759	1-124-907-11 ELECT	10uF	20%	50V		C1021	1-164-159-11 CERAMIC	0.1uF		50V (H150:G, IT)	
C760	1-162-288-31 CERAMIC	330PF	10%	50V		C1022	1-162-294-31 CERAMIC	0.001uF	10%	50V (H150:G, IT)	
C761	1-162-282-31 CERAMIC	100PF	10%	50V		C1023	1-162-294-31 CERAMIC	0.001uF	10%	50V (H150:G, IT)	
C764	1-162-294-31 CERAMIC	0.001uF	10%	50V		C2001	1-161-379-00 CERAMIC	0.01uF	20%	25V (H150:G, IT)	
C795	1-124-907-11 ELECT	10uF	20%	50V		< CIRCUIT BREAKER >					
C801	1-124-907-11 ELECT	10uF	20%	50V		CB801 $\Delta$ 1-532-564-00 BREAKER, CIRCUIT					
C802	1-162-290-31 CERAMIC	470PF	10%	50V		CB851 $\Delta$ 1-532-564-00 BREAKER, CIRCUIT					
C803	1-126-233-11 ELECT	22uF	20%	50V		< FILTER >					
C804	1-164-159-11 CERAMIC	0.1uF		50V		CF1	1-567-389-11 FILTER, CERAMIC				
C805	1-164-159-11 CERAMIC	0.1uF		50V		CF2	1-567-389-11 FILTER, CERAMIC (H150:G, IT, AUS)				
C851	1-124-907-11 ELECT	10uF	20%	50V		CF81	1-567-389-11 FILTER, CERAMIC				
C852	1-162-290-31 CERAMIC	470PF	10%	50V		< CONNECTOR >					
C853	1-126-233-11 ELECT	22uF	20%	50V		CN201	* 1-569-155-11 PLUG, CONNECTOR 10P				
C854	1-164-159-11 CERAMIC	0.1uF		50V		CN202	1-568-802-11 SOCKET, CONNECTOR 19P				
C855	1-164-159-11 CERAMIC	0.1uF		50V		CN253	* 1-564-339-71 PIN, CONNECTOR 5P				
C871	1-124-618-11 ELECT	2200uF	20%	35V		CN601	1-564-507-11 PLUG, CONNECTOR 4P				
C872	1-124-618-11 ELECT	2200uF	20%	35V		CN602	* 1-564-509-11 PLUG, CONNECTOR 6P				
C873	1-124-120-11 ELECT	220uF	20%	25V		CN701	* 1-569-155-11 PLUG, CONNECTOR 10P				
C874	1-124-484-11 ELECT	220uF	20%	35V		CN702	* 1-569-155-11 PLUG, CONNECTOR 10P				
C875	1-124-907-11 ELECT	10uF	20%	50V		CN703	* 1-568-832-11 SOCKET, CONNECTOR 13P				
C876	1-124-907-11 ELECT	10uF	20%	50V		CN704	* 1-568-834-11 SOCKET, CONNECTOR 15P				
C877	1-124-907-11 ELECT	10uF	20%	50V		CN721	* 1-564-505-11 PLUG, CONNECTOR 2P				
C878	1-124-910-11 ELECT	47uF	20%	50V		CN751	* 1-564-336-00 PIN, CONNECTOR 2P				
C879	1-124-910-11 ELECT	47uF	20%	50V		CN785	* 1-564-339-00 PIN, CONNECTOR 5P				
C880	1-124-910-11 ELECT	47uF	20%	50V		CN786	* 1-564-340-00 PIN, CONNECTOR 6P				
C899	1-164-159-11 CERAMIC	0.1uF		50V		CN801	* 1-508-694-00 CONNECTOR PIN 8P				
C996	1-124-927-11 ELECT	4.7uF	20%	100V		CN802	* 1-564-706-11 PIN, CONNECTOR (SMALL TYPE) 4P				

**Note:**  
The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety. Replace only with part number specified.

**Note:**  
Les composants identifiés par une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

## MAIN POWER CHAMICAL CONDENSOR

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks				
< TRIMMER >											
CT21	1-141-227-00	CAP, TRIMMER	20PF (H150:E, EA, JE, AUS)	IC621	8-759-634-50	IC M5218AL (H150:AEP, EE, G, IT/H500)					
CT22	1-141-227-00	CAP, TRIMMER	20PF (H150:E, EA, JE, AUS)	IC661	8-759-112-93	IC uPC4570HA-1					
< DIODE >											
D21	8-719-902-79	DIODE	KV1236Z (H150:E, EA, JE, AUS)	IC701	8-759-634-50	IC M5218AL					
D201	8-719-010-34	DIODE	UZ-4.7BSC	IC702	8-752-057-19	IC CXA1101P					
D205	8-719-987-63	DIODE	IN4148M	IC703	8-759-000-49	IC MC14066BCP					
D601	8-719-987-63	DIODE	IN4148M	IC704	8-752-038-00	IC CXA1298AP					
D701	8-719-933-48	DIODE	HZS7B3L	IC705	8-759-000-48	IC MC14052BCP					
D721	8-719-987-63	DIODE	IN4148M	IC706	8-759-605-16	IC M51953BL					
D735	8-719-933-36	DIODE	HZS6B1L	IC785	8-759-040-01	IC MC14001BCP					
D736	8-719-987-63	DIODE	IN4148M	IC801	8-749-920-19	IC STK4122MK2					
D737	8-719-987-63	DIODE	IN4148M	IC999	8-759-821-93	IC LA5601					
D738	8-719-987-63	DIODE	IN4148M	< IFT >							
D739	8-719-987-63	DIODE	IN4148M	IFT81	1-404-853-11	TRANSFORMER, IF(CERAMIC FILTER)					
D785	8-719-987-63	DIODE	IN4148M	IFT82	1-404-807-11	TRANSFORMER, DISCRIMINATOR					
D786	8-719-987-63	DIODE	IN4148M	< JACK >							
D787	8-719-987-63	DIODE	IN4148M	J701	1-569-181-11	JACK, PIN 2P (VIDEO/AUX)					
D788	8-719-987-63	DIODE	IN4148M	< COIL >							
D789	8-719-987-63	DIODE	IN4148M	L1	1-408-425-00	INDUCTOR	220uH (H150:AEP, G, IT/H500)				
D790	8-719-987-63	DIODE	IN4148M	L81	1-408-399-00	INDUCTOR	1.5uH				
D791	8-719-987-63	DIODE	IN4148M	L83	1-410-489-11	INDUCTOR	390uH				
D792	8-719-987-63	DIODE	IN4148M	L701	1-410-779-21	INDUCTOR	22mH				
D793	8-719-987-63	DIODE	IN4148M	L721	1-410-489-11	INDUCTOR	390uH				
D801	8-719-912-20	DIODE	1SS120	L751	1-410-779-21	INDUCTOR	22mH				
				L1001	1-410-521-11	INDUCTOR	100uH (H150:G, IT)				
< FRONTEND >											
FB1001	1-410-858-11	INDUCTOR	0uH (H150:G, IT)	LPF81	1-235-164-00	FILTER, LOW PASS					
FB1002	1-410-858-11	INDUCTOR	0uH (H150:G, IT)	LPF82	1-235-164-00	FILTER, LOW PASS					
FE1	1-465-007-11	FRONTEND FM (4 GAUG)	(H150:G, IT)	< TRANSISTOR >							
FE1	1-465-396-11	FRONTEND (3 GAUG)	(H150:EE)	Q1	8-729-620-19	TRANSISTOR	2SC2724-CD				
FE1	1-465-673-11	FRONTEND (2 BAND)	(EXCEPT H150:EE, G, IT)	Q2	8-729-620-19	TRANSISTOR	2SC2724-CD (H150:G, IT)				
FE2	1-236-462-11	ENCAPSULATED COMPONENT	(H150:AEP, EE, G, IT/H500)	Q3	8-729-900-80	TRANSISTOR	DTC114ES				
FE2	1-236-777-11	ENCAPSULATED COMPONENT	(H150:E, EA, JE, AUS)	Q4	8-729-900-61	TRANSISTOR	DTA114ES				
FE2	1-236-461-11	ENCAPSULATED COMPONENT	(H150:US, CND)	Q5	8-729-900-80	TRANSISTOR	DTC114ES (EXCEPT H150:US, CND)				
FE3	1-236-463-11	ENCAPSULATED COMPONENT	(H150:AEP, EE, G, IT/H500)	Q6	8-729-900-80	TRANSISTOR	DTC114ES (EXCEPT H150:US, CND)				
FL81	1-236-465-11	ENCAPSULATED COMPONENT	(H150:G, IT)	Q7	8-729-119-76	TRANSISTOR	2SA1175-HFE (EXCEPT H150:US, CND)				
< IC >											
IC51	8-759-239-29	IC	TC9217P	Q8	8-729-620-05	TRANSISTOR	2SC2603-EF (EXCEPT H150:US, CND)				
IC81	8-759-821-45	IC	LA1851N	Q9	8-729-900-80	TRANSISTOR	DTC114ES (EXCEPT H150:US, CND)				
IC201	8-759-150-19	IC	uPD75112CW-064	Q10	8-729-900-74	TRANSISTOR	DTC143TS (H150:AEP, EE, G, IT/H500)				
IC202	8-752-337-26	IC	CXD2500AQ	Q10	8-729-900-80	TRANSISTOR	DTC114ES (H150:E, EA, JE, AUS)				
IC221	8-752-337-09	IC	CXD2554P	Q51	8-729-202-67	TRANSISTOR	2SK246-GR3				
IC222	8-759-990-13	IC	TDA1543A	Q52	8-729-201-84	TRANSISTOR	2SC3112-B				
IC223	8-759-634-51	IC	M5218AP	Q53	8-729-202-67	TRANSISTOR	2SK246-GR3 (H150:AEP, EE, G, IT/H500)				
IC253	8-759-633-65	IC	M54641L	Q54	8-729-201-84	TRANSISTOR	2SC3112-B (H150:AEP, EE, G, IT/H500)				
IC601	8-759-112-93	IC	uPC4570HA-1								
IC602	8-759-140-53	IC	uPD4053BC								

MAIN	POWER	CHAMICAL CONDENSOR
------	-------	--------------------

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
Q101	8-729-620-05	TRANSISTOR	2SC2603-EF	R11	1-249-421-11	CARBON	2.2K 5% 1/4W (H150:AEP, EE, G, IT/H500)
Q102	8-729-620-05	TRANSISTOR	2SC2603-EF	R12	1-249-421-11	CARBON	2.2K 5% 1/4W (H150:AEP, EE, G, IT/H500)
Q103	8-729-900-80	TRANSISTOR	DTC114ES	R12	1-249-429-11	CARBON	10K 5% 1/4W (H150:E, EA, JE, AUS)
Q201	8-729-620-05	TRANSISTOR	2SC2603-EF	R13	1-249-433-11	CARBON	22K 5% 1/4W (H150:AEP, EE, G, IT/H500)
Q231	8-729-141-26	TRANSISTOR	2SC3622A-LK	R14	1-249-432-11	CARBON	18K 5% 1/4W (H150:AEP, EE, G, IT/H500)
Q232	8-729-141-26	TRANSISTOR	2SC3622A-LK	R15	1-247-903-00	CARBON	1M 5% 1/4W (H150:AEP, EE, G, IT/H500)
Q233	8-729-900-65	TRANSISTOR	DTA114ES	R20	1-249-425-11	CARBON	4.7K 5% 1/4W (EXCEPT H150:US, CND)
Q234	8-729-900-80	TRANSISTOR	DTC114ES	R21	1-249-429-11	CARBON	10K 5% 1/4W (H150:E, EA, JE, AUS)
Q252	8-729-900-80	TRANSISTOR	DTC114ES	R22	1-249-429-11	CARBON	10K 5% 1/4W (H150:E, EA, JE, AUS)
Q253	8-729-900-80	TRANSISTOR	DTC114ES	R23	1-249-407-11	CARBON	150 5% 1/4W (H150:US, CND)
Q601	8-729-904-39	TRANSISTOR	DTC114TS	R50	1-249-441-11	CARBON	100K 5% 1/4W
Q603	8-729-900-80	TRANSISTOR	DTC114ES	R51	1-249-417-11	CARBON	1K 5% 1/4W
Q651	8-729-904-39	TRANSISTOR	DTC114TS	R52	1-249-417-11	CARBON	1K 5% 1/4W
Q721	8-729-801-93	TRANSISTOR	2SD1387	R53	1-249-441-11	CARBON	100K 5% 1/4W
Q722	8-729-620-05	TRANSISTOR	2SC2603-EF	R54	1-249-417-11	CARBON	1K 5% 1/4W
Q723	8-729-900-80	TRANSISTOR	DTC114ES	R55	1-249-425-11	CARBON	4.7K 5% 1/4W
Q731	8-729-904-39	TRANSISTOR	DTC114TS	R56	1-249-405-11	CARBON	100 5% 1/4W
Q732	8-729-900-61	TRANSISTOR	DTA114ES	R57	1-249-401-11	CARBON	47 5% 1/4W
Q735	8-729-111-29	TRANSISTOR	2SD1616A-K	R58	1-249-423-11	CARBON	3.3K 5% 1/4W
Q736	8-729-209-15	TRANSISTOR	2SD2012 (EXCEPT H150:US, CND)	R59	1-249-414-11	CARBON	560 5% 1/4W
Q736	8-729-140-98	TRANSISTOR	2SD773 (H150:US, CND)	R60	1-249-417-11	CARBON	1K 5% 1/4W
Q738	8-729-900-61	TRANSISTOR	DTA114ES	R61	1-249-410-11	CARBON	270 5% 1/4W
Q739	8-729-900-89	TRANSISTOR	DTC144ES	R62	1-249-418-11	CARBON	1.2K 5% 1/4W
Q740	8-729-900-89	TRANSISTOR	DTC144ES	R63	1-249-421-11	CARBON	2.2K 5% 1/4W
Q781	8-729-904-39	TRANSISTOR	DTC114TS	R64	1-249-425-11	CARBON	4.7K 5% 1/4W
< RESISTOR >							
R1	1-249-411-11	CARBON	330 5% 1/4W	R65	1-249-425-11	CARBON	4.7K 5% 1/4W
R2	1-249-393-11	CARBON	10 5% 1/4W (H150:G, IT)	R66	1-249-405-11	CARBON	100 5% 1/4W
R2	1-249-411-11	CARBON	330 5% 1/4W (EXCEPT H150:G, IT)	R67	1-249-423-11	CARBON	3.3K 5% 1/4W (H150:AEP, EE, G, IT/H500)
R3	1-247-891-00	CARBON	330K 5% 1/4W	R68	1-249-414-11	CARBON	560 5% 1/4W (H150:AEP, EE, G, IT/H500)
R4	1-249-411-11	CARBON	330 5% 1/4W	R69	1-249-417-11	CARBON	1K 5% 1/4W (H150:AEP, EE, G, IT/H500)
R5	1-247-891-00	CARBON	330K 5% 1/4W (H150:G, IT)	R70	1-249-410-11	CARBON	270 5% 1/4W (H150:AEP, EE, G, IT/H500)
R6	1-249-411-11	CARBON	330 5% 1/4W (H150:G, IT)	R71	1-249-433-11	CARBON	22K 5% 1/4W (H150:AEP, EE, G, IT/H500)
R7	1-249-405-11	CARBON	100 5% 1/4W	R72	1-249-421-11	CARBON	2.2K 5% 1/4W (H150:AEP, EE, G, IT/H500)
R8	1-249-441-11	CARBON	100K 5% 1/4W	R73	1-249-425-11	CARBON	4.7K 5% 1/4W (H150:AEP, EE, G, IT/H500)
R9	1-249-437-11	CARBON	47K 5% 1/4W	R74	1-249-425-11	CARBON	4.7K 5% 1/4W (H150:AEP, EE, G, IT/H500)
R10	1-249-425-11	CARBON	4.7K 5% 1/4W (H150:AEP, EE, G, IT/H500)				
R10	1-249-421-11	CARBON	2.2K 5% 1/4W (H150:E, EA, JE, AUS)				
R11	1-249-429-11	CARBON	10K 5% 1/4W (H150:E, EA, JE, AUS)				

MAIN	POWER	CHAMICAL CONDENSOR
------	-------	--------------------

Ref. No.	Part No.	Description			Remarks	Ref. No.	Part No.	Description			Remarks
R75	1-249-393-11	CARBON	10	5%	1/4W	R224	1-249-417-11	CARBON	1K	5%	1/4W
R81	1-249-433-11	CARBON	22K	5%	1/4W	R225	1-249-417-11	CARBON	1K	5%	1/4W
R82	1-249-417-11	CARBON	1K	5%	1/4W	R226	1-249-417-11	CARBON	1K	5%	1/4W
R83	1-249-399-11	CARBON	33	5%	1/4W	R231	1-249-429-11	CARBON	10K	5%	1/4W
R84	1-249-429-11	CARBON	10K	5%	1/4W	R232	1-249-425-11	CARBON	4.7K	5%	1/4W
R85	1-249-429-11	CARBON	10K	5%	1/4W	R233	1-249-429-11	CARBON	10K	5%	1/4W
R86	1-249-437-11	CARBON	47K	5%	1/4W	R234	1-249-393-11	CARBON	10	5%	1/4W
R87	1-249-409-11	CARBON	220	5%	1/4W	R235	1-249-417-11	CARBON	1K	5%	1/4W
R88	1-249-429-11	CARBON	10K	5%	1/4W	R236	1-249-417-11	CARBON	1K	5%	1/4W
R89	1-249-429-11	CARBON	10K	5%	1/4W	R237	1-249-419-11	CARBON	1.5K	5%	1/4W
R90	1-249-421-11	CARBON	2.2K	5%	1/4W	R238	1-249-419-11	CARBON	1.5K	5%	1/4W
R91	1-249-421-11	CARBON	2.2K	5%	1/4W	R239	1-249-433-11	CARBON	22K	5%	1/4W
R92	1-247-891-00	CARBON	330K	5%	1/4W	R241	1-249-413-11	CARBON	470	5%	1/4W
R93	1-247-891-00	CARBON	330K	5%	1/4W	R242	1-249-417-11	CARBON	1K	5%	1/4W
R94	1-249-417-11	CARBON	1K	5%	1/4W	R243	1-249-411-11	CARBON	330	5%	1/4W
R95	1-249-417-11	CARBON	1K	5%	1/4W	R244	1-249-411-11	CARBON	330	5%	1/4W
R96	1-249-425-11	CARBON	4.7K	5%	1/4W	R245	1-249-421-11	CARBON	2.2K	5%	1/4W
R97	1-249-425-11	CARBON	4.7K	5%	1/4W	R247	1-249-433-11	CARBON	22K	5%	1/4W
R98	1-249-404-00	CARBON	82	5%	1/4W	R248	1-249-421-11	CARBON	2.2K	5%	1/4W
R99	1-249-417-11	CARBON	1K	5%	1/4W	R249	1-249-429-11	CARBON	10K	5%	1/4W
(EXCEPT H150:G, IT)											
R99	1-249-420-11	CARBON	1.8K	5%	1/4W (H150:G, IT)	R250	1-249-429-11	CARBON	10K	5%	1/4W
R100	1-247-848-11	CARBON	5.1K	5%	1/4W	R251	1-249-425-11	CARBON	4.7K	5%	1/4W
R102	1-249-430-11	CARBON	12K	5%	1/4W	R252	1-249-425-11	CARBON	4.7K	5%	1/4W
R103	1-249-428-11	CARBON	8.2K	5%	1/4W	R286	1-249-405-11	CARBON	100	5%	1/4W
R104	1-249-435-11	CARBON	33K	5%	1/4W	R287	1-249-405-11	CARBON	100	5%	1/4W
R105	1-249-431-11	CARBON	15K	5%	1/4W	R288	1-249-405-11	CARBON	100	5%	1/4W
R106	1-249-417-11	CARBON	1K	5%	1/4W	R289	1-249-405-11	CARBON	100	5%	1/4W
R107	1-249-431-11	CARBON	12K	5%	1/4W (H150:G, IT)	R290	1-249-405-11	CARBON	100	5%	1/4W
R132	1-249-417-11	CARBON	1K	5%	1/4W (H150:EE, G, IT)	R291	1-249-413-11	CARBON	470	5%	1/4W
R201	1-249-441-11	CARBON	100K	5%	1/4W	R292	1-249-413-11	CARBON	470	5%	1/4W
R202	1-249-441-11	CARBON	100K	5%	1/4W	R293	1-249-413-11	CARBON	470	5%	1/4W
R203	1-249-422-11	CARBON	2.7K	5%	1/4W	R294	1-249-413-11	CARBON	470	5%	1/4W
R204	1-249-422-11	CARBON	2.7K	5%	1/4W	R295	1-249-405-11	CARBON	100	5%	1/4W
R205	1-249-437-11	CARBON	47K	5%	1/4W	R296	1-249-405-11	CARBON	100	5%	1/4W
R206	1-249-437-11	CARBON	47K	5%	1/4W	R297	1-249-405-11	CARBON	100	5%	1/4W
R207	1-249-437-11	CARBON	47K	5%	1/4W	R298	1-249-405-11	CARBON	100	5%	1/4W
R208	1-249-437-11	CARBON	47K	5%	1/4W	R299	1-249-441-11	CARBON	100K	5%	1/4W
R209	1-249-441-11	CARBON	100K	5%	1/4W	R601	1-247-881-00	CARBON	120K	5%	1/4W
R210	1-249-437-11	CARBON	47K	5%	1/4W	R602	1-249-405-11	CARBON	100	5%	1/4W
R211	1-249-423-11	CARBON	3.3K	5%	1/4W	R603	1-247-882-11	CARBON	130K	5%	1/4W
R212	1-249-423-11	CARBON	3.3K	5%	1/4W	R604	1-249-426-11	CARBON	5.6K	5%	1/4W
R213	1-249-429-11	CARBON	10K	5%	1/4W	R605	1-249-409-11	CARBON	220	5%	1/4W
R214	1-249-437-11	CARBON	47K	5%	1/4W	R606	1-249-441-11	CARBON	100K	5%	1/4W
R215	1-249-429-11	CARBON	10K	5%	1/4W	R607	1-249-418-11	CARBON	1.2K	5%	1/4W
R216	1-249-441-11	CARBON	100K	5%	1/4W	R609	1-249-420-11	CARBON	1.8K	5%	1/4W
R217	1-249-411-11	CARBON	330	5%	1/4W	R610	1-247-887-00	CARBON	220K	5%	1/4W
R218	1-249-411-11	CARBON	330	5%	1/4W	R611	1-247-881-00	CARBON	120K	5%	1/4W
R219	1-249-417-11	CARBON	1K	5%	1/4W	R612	1-249-405-11	CARBON	100	5%	1/4W
R220	1-249-421-11	CARBON	2.2K	5%	1/4W	R613	1-247-882-11	CARBON	130K	5%	1/4W
R223	1-249-417-11	CARBON	1K	5%	1/4W	R614	1-249-426-11	CARBON	5.6K	5%	1/4W

MAIN	POWER	CHAMICAL CONDENSOR
------	-------	--------------------

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
R615	1-249-409-11	CARBON	220 5% 1/4W	R716	1-249-441-11	CARBON	100K 5% 1/4W
R616	1-249-441-11	CARBON	100K 5% 1/4W	R717	1-249-429-11	CARBON	10K 5% 1/4W
R617	1-249-441-11	CARBON	100K 5% 1/4W	R721	1-249-417-11	CARBON	1K 5% 1/4W
R621	1-249-417-11	CARBON	1K 5% 1/4W	R722	1-249-431-11	CARBON	15K 5% 1/4W
R622	1-249-437-11	CARBON	47K 5% 1/4W	R723	1-249-427-11	CARBON	6.8K 5% 1/4W (EXCEPT H150:US, CND)
R623	1-249-437-11	CARBON	47K 5% 1/4W (H150:AEP, EE, G, IT/H500)	R724	1-249-437-11	CARBON	47K 5% 1/4W (H150:AEP, EE, G, IT/H500)
R624	1-247-897-11	CARBON	560K 5% 1/4W (H150:AEP, EE, G, IT/H500)	R725	1-249-421-11	CARBON	2.2K 5% 1/4W
R625	1-249-417-11	CARBON	1K 5% 1/4W (H150:AEP, EE, G, IT/H500)	R726	1-249-437-11	CARBON	47K 5% 1/4W
R626	1-249-425-11	CARBON	4.7K 5% 1/4W	R727	1-249-388-11	CARBON	3.9 5% 1/6W
R627	1-249-437-11	CARBON	47K 5% 1/4W	R731	1-249-421-11	CARBON	2.2K 5% 1/4W
R651	1-247-881-00	CARBON	120K 5% 1/4W	R732	1-249-425-11	CARBON	4.7K 5% 1/4W
R652	1-249-405-11	CARBON	100 5% 1/4W	R733	1-249-429-11	CARBON	10K 5% 1/4W
R653	1-247-882-11	CARBON	130K 5% 1/4W	R734	1-249-437-11	CARBON	47K 5% 1/4W
R654	1-249-426-11	CARBON	5.6K 5% 1/4W	R735	1-249-413-11	CARBON	470 5% 1/4W
R655	1-249-409-11	CARBON	220 5% 1/4W	R736	1-249-411-11	CARBON	330 5% 1/4W
R656	1-249-441-11	CARBON	100K 5% 1/4W	R737	1-249-405-11	CARBON	100 5% 1/4W
R657	1-249-418-11	CARBON	1.2K 5% 1/4W	R738	1-249-414-11	CARBON	560 5% 1/4W
R659	1-249-420-11	CARBON	1.8K 5% 1/4W	R739	1-249-429-11	CARBON	10K 5% 1/4W
R660	1-247-887-00	CARBON	220K 5% 1/4W	R740	1-249-429-11	CARBON	10K 5% 1/4W
R661	1-247-881-00	CARBON	120K 5% 1/4W	R741	1-249-429-11	CARBON	10K 5% 1/4W
R662	1-249-405-11	CARBON	100 5% 1/4W	R742	1-249-437-11	CARBON	47K 5% 1/4W
R663	1-247-882-11	CARBON	130K 5% 1/4W	R743	1-249-429-11	CARBON	10K 5% 1/4W
R664	1-249-426-11	CARBON	5.6K 5% 1/4W	R744	1-249-425-11	CARBON	4.7K 5% 1/4W
R665	1-249-409-11	CARBON	220 5% 1/4W	R747	1-249-405-11	CARBON	100 5% 1/4W
R666	1-249-441-11	CARBON	100K 5% 1/4W	R748	1-249-405-11	CARBON	100 5% 1/4W
R671	1-249-417-11	CARBON	1K 5% 1/4W	R751	1-249-437-11	CARBON	47K 5% 1/4W
R672	1-249-437-11	CARBON	47K 5% 1/4W	R752	1-249-421-11	CARBON	2.2K 5% 1/4W
R673	1-249-437-11	CARBON	47K 5% 1/4W (H150:AEP, EE, G, IT/H500)	R754	1-249-431-11	CARBON	15K 5% 1/4W
R674	1-247-897-11	CARBON	560K 5% 1/4W (H150:AEP, EE, G, IT/H500)	R755	1-249-437-11	CARBON	47K 5% 1/4W
R675	1-249-417-11	CARBON	1K 5% 1/4W (H150:AEP, EE, G, IT/H500)	R756	1-249-426-11	CARBON	5.6K 5% 1/4W
R676	1-249-425-11	CARBON	4.7K 5% 1/4W	R763	1-249-430-11	CARBON	12K 5% 1/4W
R677	1-249-437-11	CARBON	47K 5% 1/4W	R781	1-249-421-11	CARBON	2.2K 5% 1/4W
R701	1-249-437-11	CARBON	47K 5% 1/4W	R782	1-249-425-11	CARBON	4.7K 5% 1/4W
R702	1-249-421-11	CARBON	2.2K 5% 1/4W	R785	1-249-421-11	CARBON	2.2K 5% 1/4W
R704	1-249-431-11	CARBON	15K 5% 1/4W	R786	1-249-421-11	CARBON	2.2K 5% 1/4W
R705	1-249-437-11	CARBON	47K 5% 1/4W	R787	1-249-421-11	CARBON	2.2K 5% 1/4W
R706	1-249-426-11	CARBON	5.6K 5% 1/4W	R788	1-249-421-11	CARBON	2.2K 5% 1/4W
R708	1-249-437-11	CARBON	47K 5% 1/4W	R789	1-249-421-11	CARBON	2.2K 5% 1/4W
R709	1-247-870-11	CARBON	43K 5% 1/4W	R790	1-249-421-11	CARBON	2.2K 5% 1/4W
R710	1-249-437-11	CARBON	47K 5% 1/4W	R791	1-249-429-11	CARBON	10K 5% 1/4W
R711	1-249-429-11	CARBON	10K 5% 1/4W	R792	1-249-418-11	CARBON	1.2K 5% 1/4W
R712	1-249-426-11	CARBON	5.6K 5% 1/4W	R793	1-249-441-11	CARBON	100K 5% 1/4W
R713	1-249-430-11	CARBON	12K 5% 1/4W	R794	1-249-425-11	CARBON	4.7K 5% 1/4W
R714	1-249-429-11	CARBON	10K 5% 1/4W	R795	1-249-429-11	CARBON	10K 5% 1/4W
R715	1-249-434-11	CARBON	27K 5% 1/4W				

#### MAIN POWER CHAMICAL CONDENSOR

**Note:**  
The components identified by mark  or dotted line with mark  are critical for safety.  
Replace only with part number specified.

**Note:**  
Les composants identifiés par une marque  sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
S1A	1-572-335-11	SWITCH, LEAF (Cr02) (DECK A)					
S1B	1-572-335-11	SWITCH, LEAF (Cr02) (DECK B)					
S2A	1-571-736-11	SWITCH, LEAF (MD POWER) (DECK A)					
S2B	1-571-736-11	SWITCH, LEAF (MD POWER) (DECK B)					
S3A	1-571-736-11	SWITCH, LEAF (PLAY) (DECK A)					
S3B	1-571-736-11	SWITCH, LEAF (PLAY) (DECK B)					
S4B	1-571-736-11	SWITCH, LEAF (REC) (DECK B)					
T901	△ 1-450-055-11	TRANSFORMER, POWER (H150:E, EA, JE, AUS)					
T901	△ 1-450-463-11	TRANSFORMER, POWER (H150:AEP, EE, G, IT/H500)					
T901	△ 1-450-057-11	TRANSFORMER, POWER (H150:US, CND)					
*****							
ACCESSORIES & PACKING MATERIALS							
*****							
1-465-343-11	REMOTE COMMANDER (RM-S6)						
1-501-369-11	ANTENNA (H500:UK)						
1-501-374-11	ANTENNA, LOOP (H500:UK)						
1-558-032-11	CORD, POWER (H500:UK)						
2-181-754-01	COVER, BATTERY (RM-S6)						
3-701-630-00	BAG, POLYETHYLENE (H500:UK)						
3-754-935-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, CHINESE, DUTCH) (H500:UK)						
* 4-941-548-01	LABEL, CLASS 1						
4-950-193-11	LABEL, MODEL NUMBER (H500:AEP)						
* 4-951-177-01	CUSHION, UPPER						
* 4-951-178-01	CUSHION, LOWER						
* 4-951-427-01	INDIVIDUAL CARTON (H500:UK)						
*****							

**HARDWARE LIST**

\*\*\*\*\*

#1	7-685-645-79	SCREW +BVTP	3X6	TYPE2	IT-3
#2	7-682-547-04	SCREW +BVTT	3X6	(S)	
#3	7-685-650-79	SCREW +BVTP	3X16	TYPE2	IT-3
#4	7-685-647-79	SCREW +BVTP	3X10	TYPE2	N-S
#5	7-685-133-19	SCREW +P	2.6X6	TYPE2	
#6	7-685-648-79	SCREW +BVTP	3X12	TYPE2	N-S
#7	7-682-550-09	SCREW +BVTT	3X12	(S)	
#8	7-685-649-79	SCREW +BVTP	3X14	TYPE2	N-S
#9	7-621-255-25	SCREW +PTT	2X4	(S)	
#10	7-621-255-10	SCREW +PTT	2X3	(S)	
#11	7-621-775-20	SCREW +B	2.6X5		
#12	7-685-870-01	SCREW +BVTT	3X5	(S)	
#13	7-623-921-01	RING, RETAINING, CAPSTAN			
#14	7-685-234-19	SCREW +KTP	2.6X8	TYPE2NON-SLIT	
#15	7-685-646-79	SCREW +BVTP	3X8	TYPE2	N-S
#16	7-624-105-04	STOP RING	2.3	TYPE -E	
#17	7-621-775-10	SCREW +B	2.6X4		
#18	7-685-134-19	SCREW +BTP	2.6X8	TYPE2	N-S
#19	7-621-255-15	SCREW +P	2X3		
#20	7-688-001-01	W	2	, SMALL	

**Note:**

The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety. Replace only with part number specified.

**Note:**

Les composants identifiés par une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

